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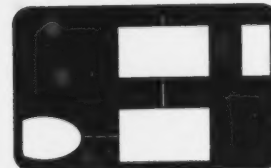
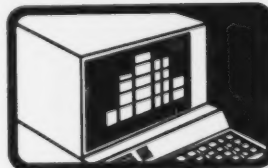
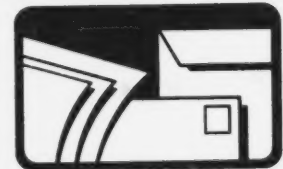
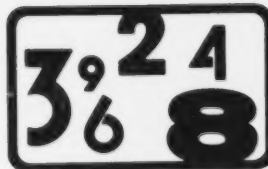
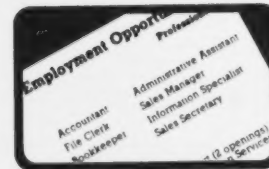
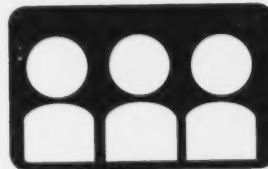
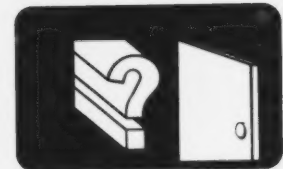
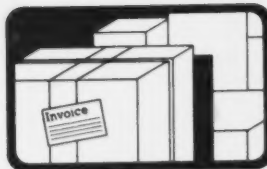
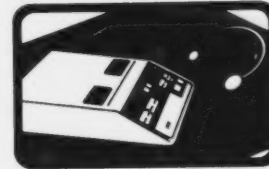
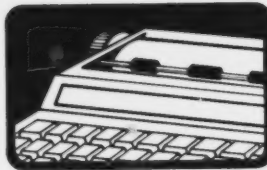
ABSTRACT

This curriculum guide is intended to assist business and office occupations teachers in preparing clerical and secretarial students to function in offices whose procedures and equipment are changing rapidly in the face of modern technology. Although the curriculum has been developed primarily for students enrolled in secondary-level vocational programs, some of the units are also suitable for postsecondary and adult classes. The following topics are covered in this volume of the curriculum: internal services (incoming and outgoing mail, filing, noncomputational recordkeeping, reprographics); oral communication skills; office procedures and organization (selecting and requesting office supplies, organizing workstations, selecting equipment and office furniture, purchasing and maintenance options, knowing the office structure, office procedures and organization); numerical clerical records (electronic calculators, petty cash, payrolls, invoices); and information processing (word processing, accounting, using spreadsheets, database management). Each unit contains unit and lesson objectives, competencies addressed in the unit, notes to the instructor, references, and one or more lessons. The individual lessons contain some or all of the following: information sheets, transparency masters, assignment sheets, answers to the assignment sheets, one or more posttests, and posttest key(s). A matrix that cross-references competencies addressed in the curriculum to Dictionary of Occupational Titles job classifications is also included. (MN)

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Secretarial Technology/ Office Technology

Volume II



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SECRETARIAL TECHNOLOGY/OFFICE TECHNOLOGY

Volume II
Units V - IX

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FOREWORD

Because of the many job opportunities available in the business world for properly trained business and office personnel, there is an acute need for updated instructional materials that contain current information about the procedural and equipment changes that are occurring in today's office. This three-volume guide - Secretarial Technology/Office Technology - was developed to meet this need.

The instructional materials are designed for one-, two- or three-period clerical/secretarial secondary course offerings. It was developed primarily for vocational business and office instructors in Missouri's 268 secondary local districts. However, several instructional units in the publication can be used in postsecondary and adult offerings.

The project adhered to the Missouri Vocational Instructional Management System (VIMS) in the development and organization of these instructional materials. The Develop a Curriculum (DACUM) process was used when conducting an occupational analysis for the job of clerical/secretarial to determine the competencies, duties, and tasks for this occupation.

This guide is divided into three volumes. Volume I contains the following units: Exploring Career Opportunities; Typing; Using Written Communication Skills; and Transcribing. Volume II contains the following units: Performing Internal Services; Using Oral Communication Skills; Using Office Procedures and Organization Skills; Using Numerical-Clerical Records; and Processing Information. Volume III contains the following units: Job Seeking; Performing Client-Related Services; Increasing Personal Development; Making Decisions and Solving Problems; and Performing Product-to-Client Transactions.

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TO HELP YOU USE THIS GUIDE
COMPETENCY-BASED INSTRUCTION

Business education instructors have used comprehensive student measurement criteria for many years, particularly in those courses that include psychomotor skills such as typewriting, shorthand, and clerical/secretarial offerings. Grades in those courses are based primarily on production ability. Students with the higher rates of production receive the higher grades. And all students are evaluated on established standards rather than on comparisons with the progress made by other students.

Competency-based instruction has become a part of the vocabulary of the educational community. Competencies and criterion-referenced measures have come into widespread use as most states have mandated minimum competency programs. While the use of competence to measure achievement is not new in education, the recent emphasis on accountability has put the spotlight on competency-based instruction.

Any program of minimum competencies should not be so broad that instructors feel that the preparation for the competencies is an overwhelming task or that many students feel it is not possible to achieve the competencies and thus lack the drive to achieve them. A great deal of planning will be required by business educators to assure the relevancy of course content with actual job profiles and consumer needs. New comprehensive recordkeeping systems that will provide more detailed data to parents, students, and businesspersons concerning pupil achievements will also be required as competency-based instructional systems are initiated. Educators are rapidly determining that they must rely upon automated electronic recordkeeping systems if adequate

information for effective instruction is to be available.

The Vocational Instructional Management System (VIMS) has become Missouri's framework for competency-based instruction. There are three basic steps for implementing the system: (1) Identify your occupational program goals; (2) Prepare a job analysis or occupational task list; and (3) Write performance objectives based on the occupational task list. By following these procedures, specific employability skills and work values that should be included in the instructional program are assured. This VIMS process was utilized in the development of this curriculum guide.

Competencies are stated prior to instruction and the student knows what the basis for evaluation will be. Each student is thus held responsible for mastering the competencies. The basis for grading is attainment of competencies rather than measurement against other students. Pupils may elect to complete a full sequence of competencies in an occupational cluster, complete competencies for several specific jobs as described in the Dictionary of Occupational Titles, or a single job classification.

The suggested performance objectives for the various competencies listed in this publication are written to include three components: (1) a condition statement, (2) a performance statement, and (3) standards. Most of the objectives indicate the number of correct answers/items that should be completed in a specified time period. Some of the statements may require a higher degree of accuracy than previously required in a classroom setting, but today's businesspersons need employees who are productive and who prepare highly accurate work. Time in the business world equates cost. Students should be taught that increased production is a key factor in the American business world and unless business

institutions can compete in changing economic environments and an international market, they will not survive.

Competency-based instruction lends itself to a satisfactory-unsatisfactory grading system. However, the majority of our school systems require letter grades. Since parents seem reluctant to accept anything less than evaluation based on a grading system, and since employers ask the school to differentiate prospective employees on some type of grading scale, attention must be given to some means of assigning grades.

It is recommended that most of the suggested standards in this publication be accepted as minimum qualification, and as such they should be considered in the grading process as a C letter or average grade. Those students who do not meet the established minimums should be given remedial learning activities to assist them in achieving the stated goals. Students who complete the tasks with greater accuracy and in shorter time periods should be given an A or B letter or above average grade.

Another factor to consider in the grading process is the number of competencies completed by the student. Most instructors in our state are assigned pupils for designated periods of time. Therefore, it may be necessary to establish a contractual agreement with each student about the number of competencies that will be mastered for each grading period. The overall grade should reflect the quality and quantity of work completed.

Competency-based instruction offers several decided advantages over other types of educational systems. As reflected in this publication, it

describes the outcomes of programs, uses criterion-referenced measures based on clearly stated objectives, provides a sound basis for communicating with the business community, and enables students to move more rapidly in their instructional program while achieving their career goals.

XOX

1. Analyze business and office careers
2. Select a prospective career

1. Perform functions such as setting margins, tabs, spacing, and alignment
2. Organize and type a business letter
3. Type a mailable letter from copy containing proofreader's marks
4. Type a memo from proofread copy
5. Type business forms
6. Organize and type tables
7. Organize and type business reports
8. Compose and type manuscripts

1. Use correct sentence structure
2. Capitalize and abbreviate words in business letters
3. Punctuate sentences using commas, semi-colons, and apostrophes
4. Use commonly confused words and terms correctly
5. Type numbers in business letters
6. Type hyphens and dashes correctly
7. Spell words correctly in typed copy
8. Choose verbs which agree with given subjects
9. Revise sentences into complete and concise statements
10. Compose and type request letters

1. Type a business letter using a transcribing machine
2. Type a business letter from office-style dictation

[illegible]

xxii

[illegible]

1. Use effective communication skills
2. Locate telephone numbers for area businesses and services
3. Locate telephone area codes
4. Make telephone calls to place orders or to obtain information
5. Take an order over the telephone
6. Take telephone messages
7. Make hotel and plane reservations
8. Direct visitors to appropriate offices
9. Describe how to deal with irate customers

G. Using Office Procedures and Organizational Skills

1. Identify the uses of types and grades of office supplies
2. Select office supplies
3. Decide when to use requisitions and purchase orders
4. List factors to be considered when ordering supplies
5. Stock and organize a supply cabinet
6. Clean and organize a desk
7. Organize a work station
8. List criteria for selecting office equipment
9. Prepare a maintenance file for office equipment
10. Maintain office equipment records
11. Analyze an office layout
12. Select and type a requisition for office furniture
13. Compare renting, leasing, and purchasing plans for office equipment
14. Decide whether to lease or purchase office equipment
15. Analyze whether to purchase a maintenance contract
16. Compare working for public and private enterprises
17. Contrast sole proprietorships, partnerships, and corporations
18. List items to be included in an employee's manual and a desk manual
19. Diagram line and staff company structures
20. Diagram office support structures
21. Analyze job descriptions

GENERAL CLERK 07.0701	CLERK TYPIST 07.0702	CORRESPONDENCE CLERK 07.0703	GENERAL OFFICE CLERK 07.0705	MAIL ORDER CLERK 07.0706	RECEPTIONIST 07.0707	SHIPPING/RECEIVING STOCK CLERK 07.0708	TRAFFIC RATE AND TRANSPORTATION CLERK 07.0709	SECRETARIAL 07.0601	LEGAL SECRETARIAL 07.0604	MEDICAL SECRETARIAL 07.0605	STENOGRAPHIC 07.0607	WORD PROCESSING 07.0608
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	O	O	X	O	X	O	O	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
O	O	O	O	O	X	O	O	X	X	X	X	X
O	O	O	O		X			X	X	X	X	X
O	O	O	O		X			X	X	X	X	X
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X	X	X	X	X	X	X	X	X	X	X	X	X
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X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X

H. Using Numerical-Clerical Records

1. Operate an electronic calculator using the touch system
2. Convert fractions, decimals, and percents to equivalent forms
3. Convert mathematical terms such as gross to their numerical equivalents
4. Operate an electronic calculator to perform basic mathematical functions
5. Complete invoices
6. Prepare checks, make deposits, and reconcile bank statements
7. Handle petty cash
8. Figure payroll

I. Processing Information

1. Identify and describe computer components
2. Describe the electronic information cycle
3. Describe components of display, linear, and blind word processing equipment
4. Compare and evaluate the features of word processing systems
5. Produce and revise a document on a word processing system
6. Enter and retrieve information with a computerized filing system
7. Modify and correct computerized records
8. Enter data into a data base
9. Access and extract data from a data base
10. Design a data base
11. Design and use a spreadsheet

GENERAL CLERK 07.0701	CLERK TYPIST 07.0702	CORRESPONDENCE CLERK 07.0703	GENERAL OFFICE CLERK 07.0705	MAIL ORDER CLERK 07.0706	RECEPTIONIST 07.0707	SHIPPING/RECEIVING STOCK CLERK 07.0708	TRAFFIC RATE AND TRANSPORTATION CLERK 07.0709	SECRETARIAL 07.0601	LEGAL SECRETARIAL 07.0604	MEDICAL SECRETARIAL 07.0605	STENOGRAPHIC 07.0607	WORD PROCESSING 07.0608
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	0	X	X	0	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	0	X	0	0	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
0		0	0		X			X	X	X	0	X
0		0	0		X			X	X	X	0	X

J. Seeking a Job

1. Locate job sources of occupational information
2. Compare public and private employment services
3. Research a potential employer
4. Complete a job application form
5. Compose and type a letter of inquiry
6. Compose and type a letter of application
7. Make a telephone inquiry about an advertised job
8. Compose and type a letter requesting a reference
9. Prepare a resume
10. Practice interviewing for a job
11. Describe employment tests
12. Compose and type a follow-up letter

GENERAL CLERK 07.0701	CLERK TYPIST 07.0702	CORRESPONDENCE CLERK 07.0703	GENERAL OFFICE CLERK 07.0706	MAIL ORDER CLERK 07.0706	RECEPTIONIST 07.0707	SHIPPING/RECEIVING STOCK CLERK 07.0708	TRAFFIC RATE AND TRANSPORTATION CLERK 07.0709	SECRETARIAL 07.0601	LEGAL SECRETARIAL 07.0604	MEDICAL SECRETARIAL 07.0605	STENOGRAPHIC 07.0607	WORD PROCESSING 07.0608
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X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
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X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X

K. Performing Client-Related Services

1. Describe types of service offices
2. List skills required in service offices
3. Describe requirements for legal typing
4. List qualifications for becoming a notary
5. Describe procedures for becoming a notary
6. Describe responsibilities of a notary
7. Type forms used in service offices
8. Compose and type a letter to a client
9. Type medical and legal documents from longhand copy
10. Type legal or medical letters from oral or machine dictation

X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
	O				X			X	X	O	O	X
O	O	O	O		X			X	X	X		
O	O	O	O		X			X	X	X		
O	O	O	O		X			X	X	X		
X	X	X	X		X			X	X	X	X	X
X	X	X	X		X			X	X	X	X	X
					O			X	X	X	O	X
					X			X	X	X	X	X

L. Increasing Personal Development

1. Prepare a time schedule for one week of office work
2. Describe appropriate office apparel
3. Explain issues concerning proper employment behavior
4. Identify requirements and working conditions for office careers

M. Making Decisions and Solving Problems

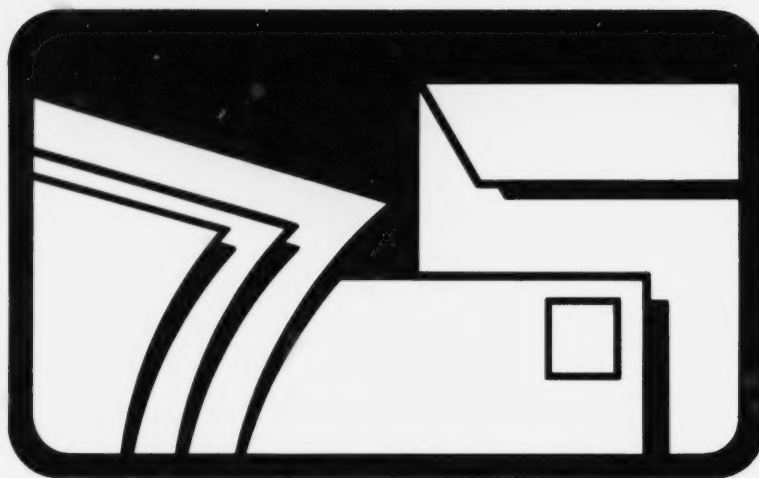
1. Recommend solutions for office problems
2. Prepare an agenda for a business meeting
3. Make arrangements for out-of-town trips
4. Prepare an itinerary
5. List steps for attending to office emergencies
6. Compose and type cover letters
7. Complete check requests
8. Type speeches from corrected copy
9. Prepare depositions
10. Prepare copy for release to the media
11. Prepare financial tables
12. Prepare an interoffice memorandum

N. Performing Product-to-Client Transactions

1. Describe the sequence of product-to-client transactions
2. Complete transaction forms such as invoices, statements, and credit memoranda
3. Identify types of discounts
4. Identify types of carriers
5. Compare perpetual and periodic inventory systems

GENERAL CLERK 07.0701	CLERK TYPIST 07.0702	CORRESPONDENCE CLERK 07.0703	GENERAL OFFICE CLERK 07.0705	MAIL ORDER CLERK 07.0706	RECEPTIONIST 07.0707	SHIPPING/RECEIVING STOCK CLERK 07.0708	TRAFFIC RATE AND TRANSPORTATION CLERK 07.0709	SECRETARIAL 07.0601	LEGAL SECRETARIAL 07.0604	MEDICAL SECRETARIAL 07.0605	STENOGRAPHIC 07.0607	WORD PROCESSING 07.0608
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
	X				X			X	X	X	X	X
					X			X	X	X		
	X				X			X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X		X			X	X	X	X	X
O			O		X			X	X	X	O	X
O	X		O		X			X	X	X	X	X
								X	X	X	X	X
X	X	X	X		X			X	X	X	X	X
	X				X			X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X		X			X	X	X	X	X
X	X	X	X		X	X	X	X	X	X	X	X
O	O	O	O	X	X	X	X	X	X	X	O	X
X	X	X	X	X	X	X	X	X	X	X	X	X

Key: X = Needed O = Optional Blank Space = Not Needed



Performing Internal Services

Unit V - Internal Services

UNIT OBJECTIVES

Upon completion of this unit, the student should be able to identify and perform, both electronically and manually, those tasks related to records management and mailing procedures.

LESSON OBJECTIVES

1. Given 7 terms and definitions relating to incoming mail, the student will be able to match them with at least 85 percent accuracy within 10 minutes.
2. Given 4 pieces of incoming mail, the student will determine which pieces can be handled by an employee and will prioritize the remaining pieces for the employer within 5 minutes with 75 percent accuracy.
3. After class discussion, the student will be able to list within 5 minutes and with 75 percent accuracy, 4 situations when the incoming envelopes should be saved.
4. Given 4 samples of incoming mail, the student will be able to verify enclosures, attach needed related materials, annotate, underline, and route the mail to appropriate persons with 75 percent accuracy within 15 minutes.
5. Given a piece of mail not requiring direct employer action, the student will be able to compose and type a mailable response within 30 minutes.
6. Given 10 terms and definitions related to outgoing mail, the student should be able to match them with at least 90 percent accuracy within 10 minutes.
7. Given a list of the 50 states and the District of Columbia, the student should be able to write the 2-letter state abbreviations with at least 90 percent accuracy within 15 minutes.
8. Given 10 examples of outgoing mail, the student should be able to state the appropriate class of U.S. Mail for each example with 90 percent accuracy within 10 minutes.
9. Given 10 examples of outgoing mail, the student will be able to select the appropriate U.S. Postal Service for each item with 90 percent accuracy within 10 minutes.
10. Given 3 large and 2 small envelopes, the student should be able to type addresses that are mailable within 20 minutes with 90 percent accuracy.

11. Given a commercial software program, the student will be able to initiate and print 30 mailable labels or envelopes within 50 minutes with 80 percent accuracy.
12. Given a list of 10 terms and definitions related to filing, the student will be able to match the terms to their definitions with 90 percent accuracy within 10 minutes.
13. Upon completion of the filing unit, the student will be able to identify and describe the use of 7 different pieces of filing equipment and supplies with 85 percent accuracy within 20 minutes.
14. Given the names of 7 individuals, the student will be able to properly index and file each one in alphabetical order with 85 percent accuracy within 15 minutes.
15. Given 7 rules of alphabetic filing, the student will be able to select, index, and code a name from the telephone book which corresponds to the rule with 85 percent accuracy within 30 minutes.
16. Upon completion of the filing unit, the student will be able to code and index 10 business and agency names and file them in alphabetical order with 90 percent accuracy within 20 minutes.
17. Upon completion of the filing unit, the student will be able to complete 5 statements that relate to numeric filing with 80 percent accuracy within 15 minutes.
18. Given a list of 7 business names, the student will be able to type, index, and arrange the cards in alphabetical order according to a subject file with 85 percent accuracy within 45 minutes.
19. Given a list of 7 business names, the student will be able to type, index, and arrange the directory cards in alphabetical order according to a numeric file with 85 percent accuracy within 45 minutes.
20. Using a microcomputer and a filing/database software program, the student will enter the information and print out 12 filing labels in alphabetical order with 90 percent accuracy within 20 minutes.
21. Using the microcomputer and a filing/database system, the student will enter and retrieve information pertaining to 12 personnel records with 90 percent accuracy within 15 minutes.
22. Upon completion of this lesson, the student will be able to match 10 terms and definitions relating to company personnel records with 90 percent accuracy within 15 minutes.
23. Upon completion of this unit, the student will be able to identify 2 advantages of fringe benefits to the employee and 2 advantages to the employer with 75 percent accuracy within 10 minutes.

24. Upon completion of the lesson, the student will be able to transfer information from 9 personnel records to a Composite Benefit Selection Form with 90 percent accuracy within 30 minutes.
25. Upon completion of this unit, the student will be able to list at least 4 techniques for accurate proofreading of records with 100 percent accuracy within 10 minutes.
26. Upon completion of this lesson, the student will be able to prepare one master copy for reproduction within 90 minutes with 100 percent accuracy.

COMPETENCIES

1. Sort and prioritize incoming mail
2. Examine and route mail to appropriate personnel
3. Compose and type letters of response
4. Explain the zip code structure and write the two-letter state abbreviations
5. Determine the appropriate class for pieces of mail
6. Select the appropriate U.S. Postal Service to use for various types of mail
7. Type addresses on envelopes
8. Prepare and use a computerized mailing list to print envelopes or mailing labels
9. Identify filing equipment and supplies
10. Index, code, cross-reference, and retrieve records
11. File records alphabetically
12. File records numerically
13. File records alphabetically by subject and geographic area
14. Use a computerized filing system to initiate, file, label, and retrieve records
15. Describe advantages of fringe benefits
16. Transfer information from one record to another
17. Describe techniques for proofreading records
18. Prepare materials for reproduction

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I. Books and Pamphlets

- A. Kutie, Rica C. and Rhodes, Joan L. Secretarial Procedures for the Electronic Office. New York: John Wiley & Sons, 1983.
- B. Luke, Cheryl M. and Stiegler, C. B. Office Systems and Procedures. Boston, MA: Houghton Mifflin Co., 1982.

- C. Moon, Harry R., A Class Project on the Simplified ARMA Rules for Alphabetizing. New York: MPC Educational Publishers, a division of John Wiley & Sons, Inc., 1985.
- D. Oliverio, Mary Ellen and Pasewark, William R. Secretarial Office Procedures. 10th Edition. Cincinnati, OH: South-Western Publishing Co., 1982.
- E. Pasewark, William R. Reprographics. 3rd Edition. Cincinnati, OH: South-Western Publishing Co., 1984.
- F. Pasewark, William R. and Oliverio, Mary Ellen. Procedures for the Modern Office. 7th Edition. Cincinnati, OH: South-Western Publishing Co., 1983.
- G. Stewart, Jeffrey R., Jr., et. al. Office Procedures. New York: Gregg Division/McGraw-Hill Book Company, 1980.
- H. U.S. Postal Service Publications:
 - 1. Certified Mail. Notice 259, February 1984.
 - 2. A Consumer's Directory of Postal Services and Products. Publication 201, November 1983.
 - 3. Insured Mail. Notice 257, February 1984.
 - 4. Priority Mail. Notice 654-307, 1982.
 - 5. Take Advantage of Four Important Services.
- I. Wagoner, Kathleen P. and Ruprecht, Mary M. Office Automation Technology and Concepts. New York: John Wiley & Sons, 1984.

II. Software*

*Software descriptions have been taken directly from the publishers and/or vendors.

- A. Fosegan, Alphabetic Indexing Rules: Application by Computer. Cincinnati: South-Western Publishing Company, 1984. For: TRS-80 III; IV; Apple II+; IIe; IBM PC.

Students apply their skills in alphabetizing through a variety of exercises. Available from South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227

- B. PFS: File is a filing/database program that works like a paper filing system without the paper. A basic form (record) is designed on the screen. The records are then filled in to develop the database. The manual is easy to understand, provides examples, and contains helpful appendices. Available from: Software Publishing Corporation, 1901 Landings Drive, Mountain View, CA 94043

- C. PFS: Report is a powerful report generator designed for use with PFS: File. It sorts both alphabetically and numerically, performs calculations on numeric information, and formats and prints presentation-quality columnar reports. Report formats can be saved for regular use. Available from: Software Publishing Corporation, 1901 Landings Drive, Mountain View, CA 94043
- D. AppleWorks is an integrated software program that contains database, word processing, and spreadsheet capabilities. Since the three different applications use the same file structure, information can be switched from application to application easily. Also, the same commands are used to do the same things in all three applications. The AppleWorks database permits the operator to organize, update, and print information quickly. Columns of figures can be calculated. Available from: Apple Computer, Inc., 20525 Mariani Avenue, Cupertino, CA 95014
- E. PC-File III is a general purpose database program that allows rapid access to any record with sophisticated search techniques: comparison, soundex, wildcard, and/or generic searches on any field in the record. Reports can be generated which list all or a selected set of the records, in many different sequences, with subtotals and totals on numeric fields. Available from: Buttonware, P.O. Box 5786, Bellvue, WA 98006
- F. Quick File is a filing/database program that runs very quickly and efficiently. The program allows for 26 files per data disk, approximately 140 records per file, and 15 categories per file. It interacts with AppleWriter IIe for merging form letters and data files. Available from Apple Computer, Inc., 20525 Mariani Avenue, Cupertino, CA 95014
- G. Lotus 1-2-3 is an integrated package that contains spreadsheet, graph, and database capabilities. The database portion utilizes the worksheet concept of columns and rows for defining records and fields. The database has file creation; adding, deleting, and modifying records; searching; sorting; retrieving; and printing capabilities. Macros help automate the procedures through the assignment of a sequence of keystrokes and commands to a cell(s) for repetitive uses. Available from: Lotus Development Corporation, 55 Cambridge Parkway, Cambridge, MA 02142
- H. dBase II/III are sophisticated database management programs that have earned the reputation of being extremely powerful--capable of meeting the needs of almost any business--but are hard to learn to use well. It is recognized as being a standard setter for business database programs. Available from Ashton-Tate, 20101 Hamilton Avenue, Torrance, CA 95002-1319

Unit V - Internal Services
Lesson 1 - Incoming Mail

LESSON OBJECTIVES

1. Given 7 terms and definitions relating to incoming mail, the student will be able to match them with at least 85 percent accuracy within 10 minutes.
2. Given 4 pieces of incoming mail, the student will determine which pieces can be handled by an employee and will prioritize the remaining pieces for the employer within 5 minutes with 75 percent accuracy.
3. After class discussion, the student will be able to list within 5 minutes and with 75 percent accuracy, 4 situations when the incoming envelope should be saved.
4. Given 4 samples of incoming mail, the student will be able to verify enclosures, attach needed related materials, annotate, underline, and route the mail to appropriate persons with 75 percent accuracy within 15 minutes.
5. Given a piece of mail not requiring direct employer action, the student will be able to compose and type a mailable response within 30 minutes.

SUGGESTED ACTIVITIES

- I. Instructor
 - A. Objectives and information sheets should be distributed and discussed with students before they begin the unit.
 - B. Have students complete Assignment Sheet 1.
 - C. Four pieces of mail are provided in Assignment Sheet 2 for student use. You may wish to supplement these with additional letters.
 - D. To add variety (and to provide composition practice), you may wish to ask students to devise their own sets of incoming mail. Divide students into groups; have each group compose four pieces of mail with various dates, contents, signatures, and requests. Have groups trade mail and practice processing the four pieces.
 - E. Instead of making classroom announcements orally, route the information to students. After reading, each student should check his/her name off the routing slip and pass along to the next student.

- F. You may wish to ask a school secretary to speak to the class on how mail is processed in the main office.
- G. Give posttest and evaluate.

II. Student

- A. Read objective and information sheets.
- B. Complete Assignment Sheets 1 and 2.
- C. Take posttest.

INSTRUCTIONAL MATERIALS

- I. Objective Sheets
- II. Information Sheets
- III. Transparency Master
 - A. TM 1: Routing Slip
- IV. Assignment Sheets and Answers
 - A. AS 1: Learning New Terms
 - B. AS 2: Processing Incoming Mail
 - C. Posttest and Key

Unit V - Internal Services
Lesson 1 - Incoming Mail

INFORMATION SHEET

I. Terms and Definitions

- A. **Annotate**—to add a note of explanation
- B. **Route**—to forward to another person or department, or to a group of persons according to an order list
- C. **Prioritize**—to arrange the mail in the order in which it should be seen or processed
- D. **Enclosure**—an additional item (such as a check, list, brochure, report) sent in the same envelope with a letter
- E. **Separate Cover**—an additional mailing of a related item
- F. **Electronic Mail**--a high speed telecommunication method of transmitting messages in-house or between companies at different locations
- G. **Voice Mail**--an electronic system that allows the recipient to receive and transmit spoken messages that are recorded on a computer by means of a magnetic medium

II. Opening Incoming Mail

- A. Mail which is marked personal or confidential should be routed unopened to the appropriate person.
- B. Mark the incoming mail with the date received.
- C. If the letter indicates an enclosure has been sent, attach the enclosure to the letter or note that there was no enclosure.
- D. If the letter indicates that additional matter will be sent under separate cover, mark your calendar to follow-up on this matter.
- E. If the letter date does not match the postmarked date, attach the envelope to the letter.
- F. Save the envelope, attaching it to the letter, if:
 - 1. Any signature is missing on the letter
 - 2. The return address is missing on the letter
 - 3. The date of mailing might be significant for legal reasons

G. Skim the letter content

1. Underline important words or phrases.
2. Annotate as needed for your employer or as needed for your future processing.
3. Attach any file copies or other materials needed for response to the letter.

H. Sort the mail for handling

1. Determine if any piece should be handled by someone other than you or your employer. If so, route that piece to him/her. (TM 1)
2. Stack mail to be handled by your employer with the most urgent on top.
3. Stack mail to be handled by you with the most urgent on top.

I. Examples of mail which a secretary might handle are:

1. Requests for routine information, requiring response by form letter or brief original letter.
2. Bills
 - a. Check the amounts for accuracy before sending to the accounting department.
 - b. Attach any verifications needed by the accounting department.
3. Payments--verify the amount before sending to the accounting department.
4. Requests for merchandise--depending on the organization of your company, either fill the order or send to the correct department.

Routing Slip

Please handle promptly!

To:

For:

___ Accounting

___ Your information

___ W. Blake

___ Please read and
pass along

___ Copy Center

___ Please handle

___ D. Fritz

___ Please read and
return

___ A. Harrington

___ Payroll

___ Personnel

___ R. Richards

___ Shipping

Special note:

Unit V - Internal Services
Lesson 1 - Incoming Mail

ASSIGNMENT SHEET 1: Learning New Terms

Directions: For each definition in Column 1, write the letter of the correct term from Column 2.

	COLUMN 1	COLUMN 2
_____	1. An additional item sent in the same envelope with a letter	A. ROUTE
_____	2. To forward to another person or department according to an order list	B. ELECTRONIC MAIL
_____	3. To add a note of explanation	C. VOICE MAIL
_____	4. An additional mailing of a related item	D. SEPARATE COVER
_____	5. To arrange mail in the order in which it should be handled	E. ANNOTATE
_____	6. A high speed telecommunications method of transmitting messages in-house or between companies at different locations	F. VERIFY
_____	7. An electronic system that allows the recipient to receive and transmit spoken messages that are recorded on a computer by means of a magnetic medium	G. ENCLOSURE
		H. PRIORITIZE

Unit V - Internal Services
Lesson 1 - Incoming Mail

ASSIGNMENT SHEET 2: Processing Incoming Mail

Directions: Use your INFORMATION SHEET as a guide and process the four samples of incoming mail.

- I. Write a note on each piece of mail if:
 1. An enclosure should be attached
 2. You would save the envelope
 3. You would expect to receive related material under separate cover
 4. You would attach related material from your files
 5. You would handle this piece of mail yourself instead of giving it to your employer
 6. You would route this piece of mail to another person or department
- II. In the upper left-hand corner of each piece of mail, write a bold number to indicate if it should be handled first, second, third, or fourth. Circle this number.
- III. Compose and type a mailable answer to the letter from Patricia Jurden.

SANS SUPPLIES

1040 East Jefferson
Columbia, MO 65201

November 3, 19--

Vice-President
Bennote Construction, Inc.
18 South Waylord
Columbia, MO 65201

Dear Sir:

Enclosed is our most recent catalog for the best line of safety equipment available. We think we offer the highest quality helmets, earplugs, masks, and boots available, especially at our low prices.

We value your continued patronage. Bennote Construction deserves credit for your quick payment and volume orders, and we'd like to give you that credit.

Please deduct 23 percent from the list prices of any item in this catalog. If you send payment at the time of order, deduct an additional 8 percent. We hope this "credit" is the type you appreciate!

Sincerely,

Tom Britzmeier

Tom Britzmeier
Sales Manager

bms

Enclosure

November 8, 19--

Mr. Ted DeSmith
Bennote Construction, Inc.
18 South Waylord
Columbia, MO 65201

Dear Mr. DeSmith:

Perhaps you have read recently of our drive to form a local chapter of Teens For Safe Roads. As reported in last Sunday's Daily Republican, over 50 teenagers from eight mid-Missouri high schools have joined forces to work toward:

1. encouraging seat-belt use among teenagers
2. providing rides for teenage drivers who have been drinking, and
3. arranging scholarships for driver's education classes for teens.

Statistics for traffic-related injuries and even deaths among teenagers in our area are too high. Every school has experienced the loss of students to traffic accidents. We have pledged to work toward our goals through programs of publicity, seminars, and peer pressure.

We ask for your help. Enclosed is a self-addressed envelope to the Mid-Missouri TFSR Chapter. Please use it to return Bennote Construction Company's donation to this worthwhile cause. Help us make our area a safer, better place for everyone--for teenagers, for their families, and for citizens with whom they share the roads.

Sincerely,

Patricia Jurden

Patricia Jurden
Junior Billington High School
President, Teens for Safe Roads

Enclosure

November 8, 19--

Mr. Ted DeSmith, Vice-President
Bennote Construction, Inc.
18 South Waylord
Columbia, MO 65201

Dear Mr. DeSmith:

Thank you for your prompt attention to our request for bid on the construction of a new drive-in facility at our Locust Street restaurant. We have received your proposal. As you know, bids close on November 15. At that time we shall review all submitted bids and decide on a contractor.

We do, however, need clarification on two points in your proposal. First, of the total labor bid, how many manhours have you projected for finishing work? Second, what suppliers do you propose to use for electrical materials and brick?

We would appreciate a quick response to these questions so that bids can be reviewed on November 15.

Sincerely,

Lucas R. Schott

Lucas R. Schott
Director

xlc



**TODD
CONSTRUCTION
COMPANY**

901 N. Providence
Columbia, MO 65201

November 1, 19--

Mr. Ted DeSmith
Bennote Construction, Inc.
18 South Waylord
Columbia, MO 65201

Dear Ted:

Here I am in Saudi Arabia, preparing a bid for our firm's proposal on the new planned city of Abu Sari. We're proposing construction plans for the hospital, two subdivisions, and a medium-sized shopping center.

As you can imagine, our library facilities here are sketchy--and our home office has managed to misplace our copy of the August "Journal of Building" which contained your article on the new braces for quick-set brick construction. Can you send me a copy of the article? We hope to use your technique in some of our work here.

Thanks

Bill

Unit V - Internal Services
Lesson 1 - Incoming Mail

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet 1:

- | | |
|-----------------------|------------------------|
| 1. Enclosure (G) | 5. Prioritize (H) |
| 2. Route (A) | 6. Electronic Mail (B) |
| 3. Annotate (E) | 7. Voice Mail (C) |
| 4. Separate Cover (D) | |

Assignment Sheet 2:

Because of the individual decisions necessary to processing mail, student answers may vary. Differences in priority or annotation could lead to interesting discussions in class.

Following are suggestions for grading:

Britzmeier Letter

Priority Ranking:	4
Routing:	Accounting
Possible annotation:	of past experience with this company

Jurden Letter

Priority Ranking:	3
Attach:	article from paper if available
Possible Routing:	to authority to give donations
Enclosure:	self-addressed envelope

Schott Letter

Priority Ranking:	1
Attach:	Bid specifications Supplier Catalogs
Annotate:	Underline QUICK and due date Save envelope if letter was delayed in mail for any reason
Possible Routing:	copy of letter to another department needed to answer questions

Bill Letter

Priority Ranking:	2
Attach:	copy of article Save envelope because of temporary foreign address

Unit V - Internal Services
Lesson 1 - Incoming Mail

POSTTEST

- I. Directions: Choose the correct word from below to fill in the blank in each statement.

ROUTE
ENCLOSURE

ANNOTATE
PRIORITIZE

SEPARATE COVER
ELECTRONIC MAIL

1. If you think that a piece of mail should be sent to another person or department in the company, you would _____ that piece of mail to the correct person.
2. When you stack incoming mail so that the piece needing most urgent attention is on top, you _____ the mail.
3. If you skim a letter and see that a brochure was mailed in the same envelope with that letter, you know that you should have an _____ to attach to that letter.
4. If you write the following message on an incoming letter "We sent a 1984 catalog on 9-3", then we would say that you would _____ that letter.
5. If you skim a letter and see that the writer has shipped a component part to your employer, then you would expect that part to arrive under _____.
6. If you receive a telecommunication message from your company headquarters, you might use _____.

- II. Directions: Below, list four situations in which you would save the envelope of an incoming piece of mail.

- 1.
- 2.
- 3.
- 4.

III. Directions: Following are brief descriptions of pieces of incoming mail. For each piece, indicate by checkmarks how you would handle that piece; fill in blanks as needed. Priority ranking should be from 1 to 5 with the most urgent piece marked 1.

1. A letter of complaint from a valued customer: The customer states that his most recent order arrived late and damaged. Value of the order was \$86.

_____ Mark incoming date.
_____ Route to _____ .
_____ Priority ranking _____ .
_____ Save envelope.
_____ Attach enclosure.
_____ Attach materials from your files.
_____ Mark calendar to expect an item under
separate cover.
_____ Handle yourself.
_____ Annotate.

2. A letter inviting your employer to be the keynote speaker at a convention to be held in Atlanta in four months.

_____ Mark incoming date.
_____ Route to _____ .
_____ Priority ranking _____ .
_____ Save envelope.
_____ Attach enclosure.
_____ Attach materials from your files.
_____ Mark calendar to expect an item under
separate cover.
_____ Handle yourself.
_____ Annotate.

3. A letter from your employer's immediate supervisor who is located in a city 600 miles away; the letter requests a report on last month's production.

_____ Mark incoming date.
_____ Route to _____ .
_____ Priority ranking _____ .
_____ Save envelope.
_____ Attach enclosure.
_____ Attach materials from your files.
_____ Mark calendar to expect an item under
separate cover.
_____ Handle yourself.
_____ Annotate.

4. The current issue of an industry journal which you know contains a lengthy article written by the company president.

_____ Mark incoming date.
_____ Route to _____ .
_____ Priority ranking _____ .
_____ Save envelope.
_____ Attach enclosure.
_____ Attach materials from your files.
_____ Mark calendar to expect an item under
separate cover.
_____ Handle yourself.
_____ Annotate.

5. A check from a customer who knows your employer personally and has sent this payment to him rather than to the billing department.

_____ Mark incoming date.
_____ Route to _____ .
_____ Priority ranking _____ .
_____ Save envelope.
_____ Attach enclosure.
_____ Attach materials from your files.
_____ Mark calendar to expect an item under
separate cover.
_____ Handle yourself.
_____ Annotate.

Unit V - Internal Services
Lesson 1 - Incoming Mail

POSTTEST KEY

- I. 1. route
2. prioritize
3. enclosure
4. annotate
5. separate cover
6. electronic mail
- II. 1. If the letter date does not match the postmarked date
2. If any signature is missing on the letter
3. If the return address is missing on the letter
4. If the date of mailing might be significant for legal reasons
(Other answers are possible; use your own judgment)
- III. Individual judgment by the students is required in this part of the test. Answers provided are suggestions only.

1. X Mark incoming date.
 Route to .
 X Priority Ranking 2 .
 Save envelope.
 Attach enclosure.
 Attach materials from files.
 Mark calendar to expect separate cover.
 Handle yourself.
 Annotate

(Ultimately this letter would be routed to billing or shipping for credit. However, since this is a "valued customer," your employer would probably want to respond.)

2. X Mark incoming date.
 Route to .
 X Priority Ranking 3 .
 Save envelope.
 Attach enclosure.
 Attach materials from files.
 Mark calendar to expect separate cover.
 Handle yourself.
 Annotate (to show if dates are clear).

3. X Mark incoming date.
 Route to .
 X Priority ranking 1 .
 Save envelope.
 Attach enclosure.
 X Attach materials from files (those needed for
report).
 Mark calendar to expect separate cover.
 Handle yourself.
 Annotate.
4. X Mark incoming date.
 Route to .
 X Priority ranking 4 .
 Save envelope.
 Attach enclosure.
 Attach materials from files.
 Mark calendar to expect separate cover.
 Handle yourself.
 X Annotate (to draw attention to the article).
5. X Mark incoming date.
 X Route to (billing, accounting, etc.) .
 X Priority ranking 5 .
 X Save envelope (if date is different from date of
check).
 Attach enclosure.
 Attach materials from files.
 Mark calendar to expect separate cover.
 X Handle yourself.
 X Annotate (after sending check to accounting, might
give any enclosed note to your employer).

Unit V - Internal Services
Lesson 2 - Outgoing Mail

LESSON OBJECTIVES

1. Given 10 terms and definitions, related to outgoing mail, the student will be able to match them with at least 90 percent accuracy within 10 minutes.
2. Given a list of the 50 states and the District of Columbia, the student will be able to write the 2-letter state abbreviations with at least 90 percent accuracy within 15 minutes.
3. Given 10 examples of outgoing mail, the student will be able to state the appropriate class of U.S. Mail for each example with 90 percent accuracy within 10 minutes.
4. Given 10 examples of outgoing mail, the student will be able to select the appropriate U.S. Postal Service for each item with 90 percent accuracy within 10 minutes.
5. Given 3 large and 2 small envelopes, the student will type addresses that are mailable within 20 minutes with 90 percent accuracy.
6. Given a commercial software program, the student will be able to initiate and print 30 mailable labels or envelopes within 50 minutes with 80 percent accuracy.

SUGGESTED ACTIVITIES

I. Instructor

- A. Objective and information sheets should be distributed and discussed with students.
- B. Prepare transparencies for classroom lectures.
- C. Since several of the mailing terms are similar, you may wish to provide extra practice in the use of these terms by way of worksheets, quizzes, etc.
- D. The brochures from the Postal Service listed in the references are available to you for use as classroom handouts.
- E. Students should be furnished three large and two small envelopes when the posttest is administered.

II. Student

- A. Read objective and information sheets.
- B. Complete Assignment Sheets 1, 2, and 3.
- C. Take the posttest.

INSTRUCTIONAL MATERIALS

- I. Objective Sheet
- II. Information Sheets
- III. Handout Sheet
 - A. HO 1: Two-Letter State Abbreviations
- IV. Transparency Masters
 - A. TM 1: Zip Code
 - B. TM 2: Two-Letter State Abbreviations (HO 1)
 - C. TM 3: Express Mail Logo and Priority Mail Logo
 - D. TM 4: Addressing Envelopes
- V. Assignment Sheets and Answers
 - A. AS 1: New Terms
 - B. AS 2: Learning Two-Letter State Abbreviations
 - C. AS 3: Choosing Postal Class and Service
 - D. AS 4: Printing Mailing Labels or Envelopes with Computer Software
- VI. Posttest and Key

Unit V - Internal Services
Lesson 2 - Outgoing Mail

INFORMATION SHEET

I. Terms and Definitions

- A. **First-Class Mail**--for mailing letters, post cards, greeting cards, checks, and money orders
- B. **Second-Class Mail**--generally used for mailing newspapers and other periodicals
- C. **Third-Class Mail**--"advertising mail." Used for mailing printed materials and merchandise parcels weighing less than 16 ounces
- D. **Fourth-Class Mail**--used for mailing parcel post
- E. **Parcel Post**--for mailing packages weighing one pound or more
- F. **ZIP Code**--a numbering system which designates geographic areas by number for quick and mechanical routing of mail
- G. **COD**--Collect on Delivery; used by the postal service to collect payment for merchandise as it is delivered to the person who ordered it
- H. **Insured Mail**--a special service which provides protection in case the mail is lost or damaged
- I. **Special Delivery**--used to speed delivery of mail to recipient even on Sundays, holidays, or after regular business hours
- J. **Certificate of Mailing**--a receipt showing evidence of mailing
- K. **Registered Mail**--added protection for valuables (up to \$25,000) and important first-class mail
- L. **Return Receipt**--proof of delivery; identifies who signed for the item and date of delivery
- M. **Special Handling**--speeds handling of third- or fourth-class mail
- N. **Priority Mail**--First-class mail weighing over 12 ounces
- O. **Express Mail**--guaranteed next day delivery service between major cities in the United States
- P. **Bulk Mail**--large volume of outgoing mail that is sorted and bundled by zip codes in order to receive lower postage rates

- Q. **Teletypewritten message**--a service offered by Western Union which provides electronic mail distribution over an international teletypewriter network
- R. **Timed Delivery**--an electronic system that allows messages to be composed and stored on a magnetic medium for transmission at a later date
- S. **Optical Character Reader (OCR)**--an electronic machine used to read addresses on envelopes and sort letters
- T. **Certified Mail**--a special service for important papers of no dollar value which provides a mailing receipt and a record of delivery

II. ZIP Codes and Two-Letter State Abbreviations

- A. Since all businesses make extensive use of the U.S. Postal Service, you should know how ZIP codes work and why they are important. (TM 1)
 - 1. The first digit of the ZIP codes divides the United States into 9 large zones, beginning with 0 on the east coast and proceeding to 9 for the west coast, Hawaii and Alaska. Therefore, the first three digits represent a section of the country or a major post office.
 - 2. The last two digits in the ZIP codes refer to the local post office.
 - 3. Businesses often use the nine digit ZIP codes as further subdivisions of the area:
 - a. The first two figures after the hyphen refer to a sector such as part of a city or town.
 - b. The last two refer to a segment such as part of a street.

Example: 15221-1770

- B. Clerical and secretarial employees need to know the two-letter state abbreviations for all fifty states. (HO 1, TM 2)

III. The U.S. Postal Service classifies domestic mail according to the type of material.

- A. First-class mail consists of letters, cards, checks, and bills.
 - 1. The first ounce (or part of an ounce) carries a minimum charge.
 - 2. There is an additional charge for each ounce or part of an ounce.

3. First-class mail must meet restrictions in size or an extra amount is charged.
- B. Second-class mail consists of periodicals (newspapers or magazines) and carries special rates for publishers.
- C. Third-class mail is a "catch-all" class including any item which does not fit into the first- or second-class category. Third-class items must be so marked and meet size restrictions.
- D. Fourth-class mail is also called "parcel post."
 1. Fourth-class mail is for all mail not covered by the other classes, usually packages.
 2. Items mailed fourth-class must also meet certain size limits.
 3. These packages must be securely packed and sealed with reinforced tape.
 4. Rates for fourth-class mail are determined both by weight and by the distance to delivery.

IV. Special U.S. Postal Services and Classifications

- A. You can receive guaranteed next-day delivery from the U.S. Postal Service if you send your item by express mail. (Some private companies offer a similar next-day delivery service.)
 1. This service is only available in larger cities.
 2. Rates are determined by the weight and distance to delivery. (TM 3)
- B. If you have an item too large for first-class mail but you want faster service than fourth-class, you may send it priority mail. (Rates are determined by the weight of the item and distance to delivery.) (TM 3)
- C. Registered mail can be used to assure security when you are mailing irreplaceable items or items valued over \$400. When the item is delivered, the Postal Service will send you a return receipt. Rates are determined by the value of the item. Insurance is included.
- D. You may insure items in first, third, or fourth class by paying an extra charge.
 1. The insurance rate is determined by the value of the item mailed (up to \$400).

2. If you need proof that an item was received, you can purchase a return receipt.
 - a. The person who receives the item signs the receipt which is then sent back to you by the Postal Service.
 - b. Return receipts can be used with registered, certified, or insured mail.
- E. Certified mail can be used for items which have no inherent value but are important (such as legal papers). With certified mail, the mailer will get a receipt and the post office will keep a record of delivery.
- F. If you need proof that an item was mailed, you can purchase a certificate of mailing although this does not prove that the item was delivered.
- G. Special delivery means that the item will be given prompt delivery once it reaches the designated post office.
- H. You can purchase Special Handling for third- and fourth-class items which means that they will be processed with first-class mail.
- I. If you need to send an order to a customer you might want to use COD.
 1. For COD orders, the Postal Service will collect the amount the customer owes you, plus special COD charges and postage fees, when the item is delivered to the customer.
 2. The Postal Service will then send you the amount owed.

V. Addressing Envelopes

NOTE: Since the Postal Service uses OCR's (Optical Character Readers) to sort mail, you must type the address on an envelope in the "read zone." (TM 4)

- A. For large envelopes (No. 10), begin typing your address approximately 2 1/2" from the top edge and approximately 4" from the left edge of the envelope. Use all capital letters with no punctuation marks. On the last line of the address, type only the city, two-letter state abbreviations, and ZIP Code.
- B. For small envelopes (No. 6 3/4), begin typing the address approximately 2" from the top edge and 2 1/2" from the left edge.

VI. Computerized Mailing

- A. For frequent mailings to the same addresses, businesses often store names and addresses on tape or disk for use with a computer.
- B. This allows the envelopes to be typed as originals without repetitive typing.

Zip Code

ZIP CODE and ZIP plus 4 Designations for Business Use

15221 - 1770

152
Section of
Country or
Large
Metropolis

21
Local
Delivery
Area

—

1770
Geographic
Segment within
Delivery Area
(such as city
block, office
building,
individual high-
volume mailer)

TWO-LETTER STATE ABBREVIATIONS

Alabama	AL	Missouri	MO
Alaska	AK	Montana	MT
Arizona	AZ	Nebraska	NE
Arkansas	AR	Nevada	NV
California	CA	New Hampshire	NH
Colorado	CO	New Jersey	NJ
Connecticut	CT	New Mexico	NM
Delaware	DE	New York	NY
District of Columbia	DC	North Carolina	NC
Florida	FL	North Dakota	ND
Georgia	GA	Ohio	OH
Hawaii	HI	Oklahoma	OK
Idaho	ID	Oregon	OR
Illinois	IL	Pennsylvania	PA
Indiana	IN	Rhode Island	RI
Iowa	IA	South Carolina	SC
Kansas	KS	South Dakota	SD
Kentucky	KY	Tennessee	TN
Louisiana	LA	Texas	TX
Maine	ME	Utah	UT
Maryland	MD	Vermont	VT
Massachusetts	MA	Virginia	VA
Michigan	MI	Washington	WA
Minnesota	MN	West Virginia	WV
Mississippi	MS	Wisconsin	WI
		Wyoming	WY

Express Mail



For Overnight Delivery of Letters and Packages
to Many Cities

Includes Insurance

Express Mail Options for Special Needs

Priority Mail



For First-class Mail Over 12 Ounces

For 2-3 Day Service

Addressing Envelopes

**House
Designs**

1001 Broadway
Columbia MO 65201

4"

MR TED DESMITH
BENNOTE CONSTRUCTION INC
18 SOUTH WAYLAND
COLUMBIA MO 65201

2½"

**House
Designs**

1001 Broadway
Columbia MO 65201

2½"

MR TED DESMITH
BENNOTE CONSTRUCTION INC
18 SOUTH WAYLAND
COLUMBIA MO 65201

2"

Unit V - Internal Services
Lesson 2 - Outgoing Mail

ASSIGNMENT SHEET 1: New Terms

Directions: For each definition in Column 1, choose the correct term from Column 2. Write the letter of that term in each blank.

Column 1	Column 2
_____ 1. A special service used when you want the Postal Service to collect the amount due for merchandise as they deliver it.	A. Optical Character Reader
_____ 2. A special service which shows when and to whom delivery was made.	B. Return Receipt
_____ 3. Another name for parcel post.	C. Insured Mail
_____ 4. A special service which speeds delivery of third- or fourth-class mail.	D. Parcel Post
_____ 5. A special service which provides protection for the mailer in case his fourth-class mail is damaged or lost.	E. Third-class Mail
_____ 6. A class of mail used for bulk mailings of advertisements.	F. Special Handling
_____ 7. The fastest service from the Postal Service; can provide next-day delivery.	G. Priority Mail
_____ 8. An electronic machine used to read addresses and sort mail.	H. First-class Mail
_____ 9. A class of mail used for letters and greeting cards.	I. Collect on Delivery
_____ 10. A receipt showing an item was mailed.	J. Certificate of Mailing
	K. Express Mail
	L. Timed Delivery
	M. Zip Code
	N. Fourth-class Mail

Unit V - Internal Services
Lesson 2 - Outgoing Mail

ASSIGNMENT SHEET 2: Learning Two-Letter State Abbreviations

Directions: For each state or district listed below, write the correct two-letter state abbreviation in the blank.

Alabama	_____	Missouri	_____
Alaska	_____	Montana	_____
Arizona	_____	Nebraska	_____
Arkansas	_____	Nevada	_____
California	_____	New Hampshire	_____
Colorado	_____	New Jersey	_____
Connecticut	_____	New Mexico	_____
Delaware	_____	New York	_____
District of Columbia	_____	North Carolina	_____
Florida	_____	North Dakota	_____
Georgia	_____	Ohio	_____
Hawaii	_____	Oklahoma	_____
Idaho	_____	Oregon	_____
Illinois	_____	Pennsylvania	_____
Indiana	_____	Rhode Island	_____
Iowa	_____	South Carolina	_____
Kansas	_____	South Dakota	_____
Kentucky	_____	Tennessee	_____
Louisiana	_____	Texas	_____
Maine	_____	Utah	_____
Maryland	_____	Vermont	_____
Massachusetts	_____	Virginia	_____
Michigan	_____	Washington	_____
Minnesota	_____	West Virginia	_____
Mississippi	_____	Wisconsin	_____
		Wyoming	_____

Unit V - Internal Services
Lesson 2 - Outgoing Mail

ASSIGNMENT SHEET 3: Choosing Postal Class and Services

Directions: Read the description and classify each piece of mail.
Indicate any special services needed.

	Class of Mail	Special Services
1. A signed contract to be mailed to one of your branch offices so that work can be started in two days on a new project		
2. A mailing of brochures to all current customers describing a new service your company will be offering soon		
3. A thick report weighing 3 pounds to be sent to a government agency which has imposed a deadline three days from now; the government agency is located in a city 120 miles from your office		
4. A letter responding to a complaint from an angry customer		
5. A gift valued at \$50 to be mailed to a recently retired employee		
6. A monthly letter sent to each of 8 regional sales managers		
7. Stock certificates valued at \$8,500		
8. A contract which must be in a customer's office by 5 p.m. tomorrow; the office is located in another city		

	Class of Mail	Special Services
9. A delicate component part worth \$9,000 to be mailed to San Francisco		
10. A monthly newsletter published by your company and mailed to all public universities in the United States		

Unit V - Internal Services
Lesson 2 - Outgoing Mail

ASSIGNMENT SHEET 4: Printing Mailing Labels or Envelopes with Computer Software

Directions: Using database software, create a "CLIENTS" file of the following names and addressess. Print mailing labels or envelopes for the entire file.

Dr. Hiram Bennett
48 Rosebloom Road
San Jose, CA 95103

Mrs. Ramona Taylor
4206 Oakville Gravel Road
Sedalia, MO 65301

Dr. Jeanne Weber
3821 Delta Ferry Road
Savannah, GA 30092

Dr. Mary Van der Berg
56 North 77 Bypass
Shawnee Mission, KS 66212

Mr. Forrest Meador
319 Perkshire Building
Trenton, NJ 08608

Ms. Margaret Milsmith
P. O. Box 3001
Newport, KY 41071

Dr. Barbara Tildenberg
5836 Barrows Way
Miami, FL 74570

Dr. Olive Weirman, Director
Emergency Medicine Service
City Hospital
Topeka, KS 66604

Ms. Sharon Wang
89 Pennine Blvd.
Boston, MA 02104

Mr. David L. O'Brien
582 North Oak Street
Dover, VT 05356

Mr. Peter G. Jackson
576 Steiner Street
Yakima, WA 98902

Dr. Jennifer Schott
2704 Greenway Road
Poplar Bluff, MO 63901

Unit V - Internal Services
Lesson 2 - Outgoing Mail

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet 1:

1. Collect on Delivery (I)
2. Return Receipt (B)
3. Fourth-class Mail (N)
4. Special Handling (F)
5. Insured Mail (C)
6. Third-class Mail (E)
7. Express Mail (K)
8. Optical Character Reader (A)
9. First-class Mail (H)
10. Certificate of Mailing (J)

Assignment Sheet 2:

Answers are on TM 2 and HO 1.

Assignment Sheet 3:

- | | |
|--|---------------------------------------|
| 1. First | Certified Mail, possibly Express Mail |
| 2. Bulk Mail | None |
| 3. First-class (Priority Mail) | Return Receipt, Certified Mail |
| 4. First-class | None |
| 5. Fourth-class (Parcel Post) | Insured Mail |
| 6. First-class | None |
| 7. First-class | Certified, Return Receipt |
| 8. First-class | Express Mail, Return Receipt |
| 9. First-class (Priority Mail) | Registered Mail |
| 10. Bulk Mail or second-class if qualified | None |

Assignment Sheet 4:

Criteria to be determined by instructor.

Unit V - Internal Services
Lesson 2 - Outgoing Mail

POSTTEST

- I. Directions: From the following list of terms, choose the one which best completes each definition.

ZIP Code	COD
OCR	Priority Mail
Parcel post	Certified Mail
Registered Mail	Second-class Mail
Special Delivery	Special Handling
First-class Mail	Express mail

1. _____ is the class of mail most used by consumers as they write letters to friends, pay bills, and send cards.
2. First-class mail which weighs over 12 ounces is referred to as _____.
3. If you want to mail a package, you would use fourth-class mail also known as _____.
4. A special service which speeds the processing of third- and fourth-class mail is _____.
5. _____ is the class of mail which is used by publishers of newspapers and magazines.
6. If you are mailing an irreplaceable item valued over \$400, you should use the special service called _____.
7. To protect an item which is important but has no inherent monetary value, use the special mail service called _____.
8. If you would like prompt delivery of an item, even if it arrives at its destination on a Sunday or holiday, use the special mail service called _____.
9. Since the Postal Service uses _____'s to sort mail, you must type the address on an envelope in the "read zone."
10. In order to speed processing of the mail, the Postal Service has designated each geographic area by a number called the _____.

II. For each state listed below, write the correct two-letter state abbreviation.

- | | | | |
|---------------|-------|--------------------|-------|
| 1. Missouri | _____ | 11. Georgia | _____ |
| 2. Iowa | _____ | 12. South Dakota | _____ |
| 3. Illinois | _____ | 13. Minnesota | _____ |
| 4. Arkansas | _____ | 14. Massachusetts | _____ |
| 5. Kansas | _____ | 15. Nebraska | _____ |
| 6. Oklahoma | _____ | 16. Indiana | _____ |
| 7. California | _____ | 17. Florida | _____ |
| 8. Texas | _____ | 18. Colorado | _____ |
| 9. Arizona | _____ | 19. Utah | _____ |
| 10. New York | _____ | 20. South Carolina | _____ |

III. For each piece of mail described below, choose the class of mail you would use. Classes of mail are listed to help you.

First-class Mail	Fourth-class Mail
Second-class Mail	Priority Mail
Third-class Mail or Bulk Mail	Parcel Post

1. A letter to a customer _____
2. A letter sent to all members of the senior class _____
3. A package weighing 3 pounds sent to a customer _____
4. A post card _____
5. A package weighing 15 ounces which needs quick processing _____

IV. For each piece of mail described below, choose the special service you would use. Special services are listed to help you.

Certified Mail	Registered Mail
Express Mail	Insured Mail
Special Delivery	Special Handling
Return Receipt	Certificate of Mailing

1. A light-weight package containing a \$1,500 piece of jewelry _____
2. Your tax return which must be mailed by midnight April 15 _____
3. A family photograph of great sentimental value but no real dollar value _____
4. A third-class package containing a \$30 gift _____
5. A rough-draft copy of a manuscript you would like delivered to a publisher immediately (to be sent first-class) _____

V. Type 3 No. 10 envelopes with the following addresses:

Ms. Jane Brown
102 Shadow Wood Lane
Fayetteville, Georgia 30269

Mr. James Burns
1901 Dalton Pike
Cleveland, Tennessee 37311

Mr. Bob Davis
Route 3, Box 127
Pocola, Oklahoma 74902

Type 2 No. 6 3/4 envelopes with the following addresses:

Dr. James Gill
1231 South Houston
Ft. Smith, Arkansas 72903

Colette Carpenter, Esq.
12191 South Blackfoot Drive
Olathe, Kansas 65062

Unit V - Internal Services
Lesson 2 - Outgoing Mail

POSTTEST KEY

- I. 1. First-class Mail
2. Priority Mail
3. Parcel Post
4. Special Handling
5. Second-class Mail
6. Registered Mail
7. Certified Mail
8. Special Delivery
9. OCR
10. ZIP Code
- II. 1. MO 11. GA
2. IA 12. SD
3. IL 13. MN
4. AR 14. MA
5. KS 15. NE
6. OK 16. IN
7. CA 17. FL
8. TX 18. CO
9. AZ 19. UT
10. NY 20. SC
- III. 1. First-class
2. Third-class or Bulk Mail
3. Fourth-class or Parcel Post
4. First-class
5. Priority Mail (a type of first-class mail)
- IV. 1. Registered Mail
2. Certificate of Mailing
3. Certified Mail
4. Insured Mail
5. Special Delivery
- V. Typed Envelopes should be checked for accuracy and placement.

Unit V - Internal Services
Lesson 3 - Filing

LESSON OBJECTIVES

1. Given a list of 10 terms and definitions relating to filing, the student will be able to match the terms to their definitions with 90 percent accuracy within 10 minutes.
2. Upon completion of the filing unit, the student will be able to identify and describe the use of 7 different pieces of filing equipment and supplies with 85 percent accuracy within 20 minutes.
3. Given the names of 7 individuals, the student will be able to properly index and file each one in alphabetical order with 85 percent accuracy within 15 minutes.
4. Given 7 rules of alphabetic filing, the student will be able to select, index, and code a name from the telephone book which corresponds to the rule with 85 percent accuracy within 30 minutes.
5. Upon completion of the filing unit, the student will be able to code and index 10 business and agency names and file them in alphabetical order with 90 percent accuracy within 20 minutes.
6. Upon completion of the filing unit, the student will be able to complete 5 statements that relate to numeric filing with 80 percent accuracy within 15 minutes.
7. Given a list of 7 business names, the student will be able to type, index, and arrange the cards in alphabetical order according to a subject file with 85 percent accuracy within 45 minutes.
8. Given a list of 7 business names, the student will be able to type, index, and arrange the cards in alphabetical order according to a numeric file with 85 percent accuracy within 45 minutes.

SUGGESTED ACTIVITIES

- I. Instructor
 - A. Objective and information sheets should be distributed and discussed with students.
 - B. Prepare transparencies for classroom lectures.
 - C. The instructor should provide a local telephone directory for student use in Assignment Sheet 4. (Students could be asked to bring their directory from home.)
 - D. The instructor should provide index cards or slips of paper cut to 3" x 5" size for Assignment Sheet 6. (Each student will need 14 cards.)
 - E. After evaluating all Assignment Sheets, give the posttest.

II. Student

- A. Read objective and information sheets.
- B. After studying each filing rule, write your own examples for each.
- C. Complete Assignment Sheets 1-6.
- D. Take the posttest.

INSTRUCTIONAL MATERIALS

I. Objective Sheet

II. Information Sheets

III. Transparency Masters

- A. TM 1: Vertical File Cabinet
- B. TM 2: Lateral File Cabinet
- C. TM 3: Open Shelf Files
- D. TM 4: File Guides
- E. TM 5: File Folders
- F. TM 6: Card Tickler File
- G. TM 7: Subject File
- H. TM 8: Geographic File
- I. TM 9: Microfiche Reader

IV. Assignment Sheets and Answers

- A. AS 1: Filing Terms
- B. AS 2: Filing Equipment and Supplies
- C. AS 3: Indexing and Coding Names of Individuals
- D. AS 4: Indexing and Coding Names of Businesses
- E. AS 5: Numeric Filing
- F. AS 6: Subject and Geographic Filing

V. Posttest and Key

NOTES TO INSTRUCTOR

- I. Commercial practice sets for filing are widely available. You will probably consider a practice set or textbook for additional filing practice. If you use such materials, the assignments provided here could be used for tests.
- II. Further exposure to filing equipment and supplies can be provided by assigning students to visit bookstores, office supply stores, or by studying an office supply catalog. A bonus to such activity is that students are also made aware of the expense of filing supplies.

- III. For discussion when studying numeric filing: Ask students to name all the identification numbers they use (student number, driver's license number, social security number, license plate number, telephone number, etc.). Discuss whether they think a numeric file is maintained by the institution which issues the number--how would the numeric file be used?
- IV. For expansion on numeric filing: Use card ticklers to keep track of assignments due for the rest of the school year, especially if a workflow assignment or rotation assignments will be used. Have students set up a numeric filing system for the class. Use it to file work-in-progress or graded work for a month.
- V. This lesson instructs students in the Simplified ARMA (Association of Records Managers and Administrators) Rules for Alphabetizing. These new rules, issued in 1985, are an attempt to reconcile differences in alphabetizing systems. In particular, the new rules seek to set filing standards which correspond to those used by electronic filing systems.

Unit V - Internal Services
Lesson 3 - Filing

INFORMATION SHEET

I. Terms and Definitions

- A. **Alphabetic Filing**--a system of arranging records according to the alphabetic order of a key word (usually the name of an individual or business)
- B. **Numeric Filing**--a system of arranging records in numeric sequence
- C. **Geographic Filing**--a system of arranging records alphabetically according to location
- D. **Subject Filing**--a system of arranging records alphabetically according to the content of the record
- E. **Indexing**--determining the key word to be used as a basis for filing
- F. **Coding**--to mark the key word(s) in filing order
- G. **Cross-referencing**--a reference from one part of a file to another in order to provide more information
- H. **Retrieving**--finding a record after it has been filed
- I. **Requisitioning**--a systematic method of requesting a record from a file
- J. **Charging**--a method of keeping track of records removed from the file
- K. **Tickler File**--a chronological file used to remind you of future work
- L. **Back-up File**--an alphabetic file which shows the numeric designations
- M. **Micrographics**--media on which records are photographed in a reduced size for ease in storing and transporting
- N. **Microfiche**--a card which will hold several pages of microfilm
- O. **Microfilm**--a film on which records are photographed and reduced in size
- P. **Guides**--heavy cardboard dividers marking sections of the file
- Q. **Folders**--lightweight cardboard carriers used to hold individual records

- R. **Position**--placement of tabs across the top of a guide or folder
- S. **Cut**--the width of the tab

II. Filing Equipment and Supplies

- A. Filing cabinets are designed to hold cards, computer supplies and printouts, and large materials. However, the most common type of filing cabinets is designed to hold either the standard 8 1/2" by 11" sheets of typing paper or the legal size 8 1/2" x 13" or 14".
- B. Vertical filing cabinets have drawers stacked on top of each other in 2-, 3-, 4-, or 5-drawer units. (TM 1)
- C. Lateral filing cabinets have drawers which pull out on what would normally be the side of the drawer. These filing cabinets make more efficient use of floor space and are usually lower in height than vertical files. (TM 2)
- D. Open-Shelf files are designed with no drawers. This open-sided system makes optimum use of floor space. Sometimes the shelves have sliding covers or the entire shelf will pull out for easier access to files. (TM 3)
- E. File guides are made of heavy card stock and are used to divide the files into sections for easier retrieval of records.
 - 1. Primary guides mark the main file divisions.
 - 2. Secondary guides mark smaller divisions.
 - 3. The tabs on the guides are staggered along the width of the drawer so that one tab does not block the view of another. (TM 4)
- F. File folders divide the file into the smallest division and hold the actual records. (TM 5)
 - 1. Tabs on file folders are staggered across the width of the file drawer so that all tabs can be easily seen.
 - 2. Tabs can be the full width of the folder (full-cut), one-half the width of the folder (half-cut), one-third the width of the folder (third-cut) or one-fifth the width of the folder (fifth-cut)
 - 3. Depending on the cut desired, you can purchase folders with tabs at the far left side of the drawer, at the far right side of the drawer, centered, or in an intermediate position. Beginning with the left side of the drawer, the tab locations are referred to as "first position," "second position," etc. Therefore, you can purchase file folders which are "fifth cut, second position," etc.

4. Adhesive labels are available to identify folders, guides, and file drawers.

III. Records Management

- A. All businesses make, receive, and refer to paperwork. It is important that each business have an orderly method of filing papers (records)--so that some papers can be kept, but especially so that the records can be found (retrieved) for later reference.
- B. Alphabetic filing is ordering records according to the first letter in a key name or word in the content. (Sometimes the key name is the person or business who wrote the record; sometimes the key word is the subject of the record.)
- C. Indexing is identifying the key name or word (or perhaps number in some filing systems).
- D. Coding is marking the record so that the index order can be easily seen.
- E. Two common types of alphabetic filing are SUBJECT (according to the content of the record) and GEOGRAPHIC (according to the location of the person or business referred to in the record).
 1. A subject file might be used to store records about the current research projects at a university; regardless of who wrote each record, it would be filed according to the project concerned. (TM 7)
 2. A geographic file might be used by a sales force to file records about customers in various parts of the territory. (TM 8)
- F. A numeric file is used to file papers which are identified by number, such as insurance policies.
- G. The whole purpose of a filing system is to arrange records so that they can be retrieved when needed.
- H. Files must be kept orderly so that papers can be quickly filed, retrieved, and refiled. Most businesses have a procedure for checking out and returning files as they are needed. Checking out a file is called REQUISITIONING; keeping a record of who has checked out each file is called CHARGING.

IV. Indexing the Names of Individuals

Alphabetic filing is merely placing items in alphabetical order. But since most items (names, company names, etc.) have more than one part, it is necessary to work by standard rules. The key, of course, is proper indexing. Learn the following rules for indexing names of individuals:

- A. For indexing names of persons--index last names, then first names, (or initial or abbreviation) then middle name (or initial or abbreviation). If the names are similar, use the first different letter to determine order. If one name is the same as part of a longer name (Thomas, Thomason), the shorter name goes first. This is sometimes referred to as the "nothing before something" rule.

Example: Richard J. Baker
Index: Baker Richard J.
Code: (1) (2) (3)

Example: Bakers, Richard Baker, Richard Baker, Rick
Order: Baker, Richard ("Baker" before "Bakers," (nothing before something)
Baker, Rick ("h" before "k" in given name)
Bakers, Richard

- B. If a name contains a prefix (MacDonald, O'Brien, St. Andrews), treat the name as one continuous indexing unit even if there is a space between the prefix and the rest of the name (von Steinmetz).
- C. You may use seniority terms (Junior) or personal or professional titles (II, CPS) to determine order. When needed, the term or title is used as the last indexing unit and is indexed as written, ignoring punctuation.

Example: Arch Epstein, Junior
Index: Epstein, Arch Junior
Code: (1) (2) (3, if needed)

Example: Arch Epstein, Junior Arch Epstein, Senior
Order: Arch Epstein, Junior ("J" before "S" since titles are needed to determine order)
Arch Epstein, Senior

- D. In a hyphenated name (Davis-Wheelan, Mary-Louise), ignore the hyphen and treat the name as one indexing unit.

Example: Margaretann Whitely-Jones
Index: Whitely-Jones Margaretann (ignore the hyphen)
Code: (1) (2)

- E. If the entire name consists only of a royal, religious, or academic title and a given name (such as Father John), use the title as the first indexing unit.

Example: Queen Isabella
Index: Queen Isabella
Code: (1) (2)

- F. If you must file a confusing name, such as Thorne Davis, assume that the last part of the name written is indeed the last name.

Example: Sung Lui
Index: Lui Sung
Code: (1) (2)

- G. If a person commonly uses a nickname as a first name, file using the nickname. You may cross-reference from the given name if necessary.

Example: President Jimmy Carter
Index: Carter Jimmy (President)
Code: (1) (2) (3, if needed)

Cross-reference from: Carter James Earl (See Jimmy Carter)

V. Rules for Indexing Business Names

- A. A business name is indexed in the order written; use the trademark or company letterhead as a guide.

Example: Beatrice Foods, Inc.
Index: Beatrice Foods Incorporated
Code: (1) (2) (3)

Example: J. C. Penney Co., Inc.
Index: J. C. Penney Company Incorporated
Code: (1) (2) (3) (4) (5)

- B. Subsidiaries of businesses should be filed under their own name with a cross-reference to the parent company if needed.

Example: Weight Watchers International (See H. J. Heinz Co.)
Index: Weight Watchers International
Code: (1) (2) (3)

- C. If a business name includes a geographic name, file the place name according to standard rules.

Example: St. Louis Water and Light
Index: St. Louis Water (and) Light
Code: (1) (2) (3)

Example: Boone County Citizen's League
Index: Boone County Citizen's League
Code: (1) (2) (3) (4)

- D. If a business name includes a compass term, index each word in the compass term as a separate unit.

Example: South Western Airlines

Index: South Western Airlines

Code: (1) (2) (3)

Example: Southwestern Products, Inc.

Index: Southwestern Products Incorporated

Code: (1) (2) (3)

- E. For government units, consider the name of the major government entity first, then the distinctive name of the agency, department, bureau, etc.

Example: Forest Service

Index: United States Government Forest Service

Code: (1) (2) (3) (4) (5)

Example: Parks and Recreation Department

Index: Columbia City Parks Recreation Department

Code: (1) (2) (3) (4) (5)

- F. For foreign governments or their agencies, file according to the distinctive English name of the government. If needed, then consider the formal name of the government. Use cross-references to the official native name as needed. Divisions, departments, etc. names should then be considered, using the distinctive name first.

Example: State Department, Commonwealth of Australia

Index: Australia State Department

(1) (2) (3)

VI. Numeric Filing

- A. When a business assigns numbers to cases, policies, order forms, and invoices, it may be easier to file according to number. Since outsiders will not readily know all the numbers, a numeric filing system is more confidential than an alphabetic filing system. A numeric system is also called INDIRECT since it requires the additional step of assigning, and knowing a number before a file can be retrieved.
- B. A numeric file has three parts:
1. The main file where records are filed according to an assigned number.
 2. The back-up card file which serves as a directory, since cards are filed alphabetically by name (or subject) and the number codes are listed for each name.

- C. As an example: To file a letter from Samuel T. Abbott, you must first check the card file under "Abbott, Samuel T." to determine the number used for this customer. Then you would access the main file by that number.
- D. Another type of numeric filing is a CARD TICKLER file, which is really a "calendar in a box." You use guides for each month and one set of guides for the days of the month 1-31. Behind each day you file reminder cards so that you can follow-up on work at the appropriate time. Reminders for future months are merely filed behind the guide for that month. When the month begins, move that guide to the front of the card file, arrange the day guides behind it, and then file reminders by the appropriate date. (TM 6)

VII. Subject and Geographic Filing (TM 7, TM 8, AS 6)

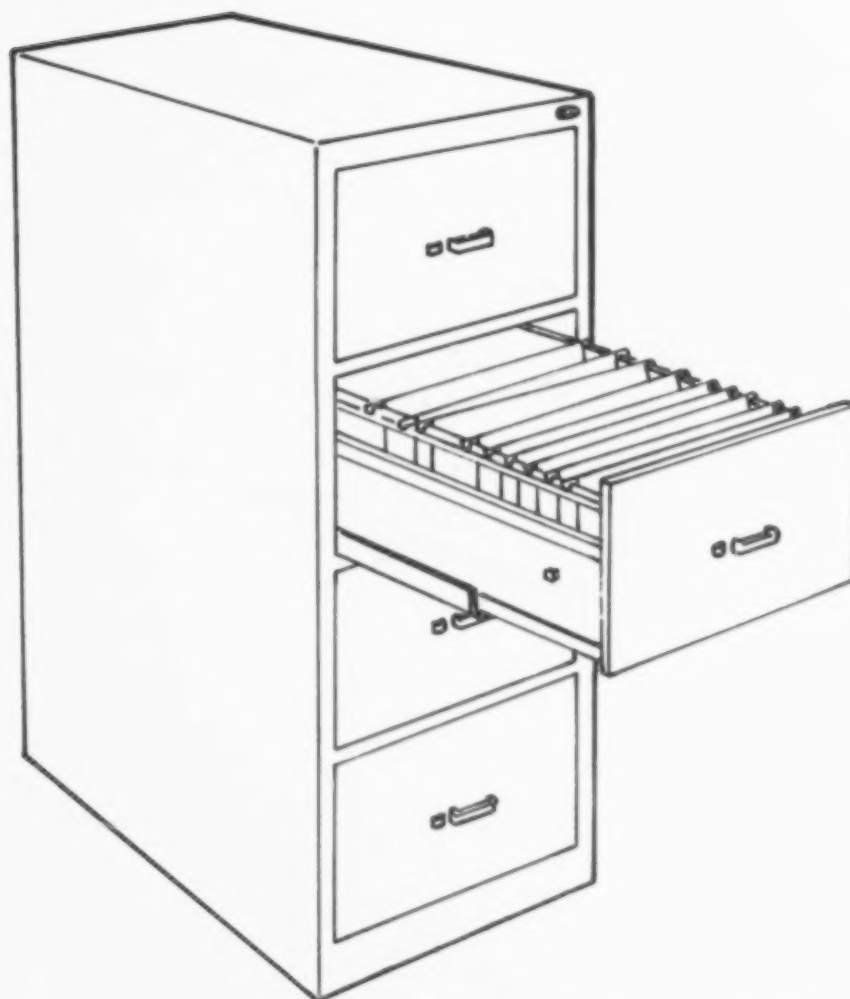
- A. Both subject and geographic filing are basically alphabetic systems. Records are filed in alphabetic order, but content is used for indexing in a subject file and location is used in a geographic file. Names of the persons or businesses involved are of secondary importance.
- B. In a subject file, primary guides denote the main subject and secondary guides are used to denote subdivisions. For example, the primary guide in a principal's files might say, "ORGANIZATIONS AND CLUBS" and the secondary guides would be used to divide by club, such as "ART CLUB," "MUSIC BOOSTERS," "STUDENT COUNCIL."
- C. In a geographic file, the main guides denote the largest geographic area used in the file (country or state). Secondary guides are used for the next subdivision (state, county, city, or possibly a sales territory which might include several states). For example the primary guide in a sales office might list "CANADA." Secondary guides would list "ONTARIO," or "QUEBEC." Further subdivisions into cities could be shown by guides or file folders, depending on the volume of records.
- D. Back-up card files are useful to both subject and geographic filing systems. In these files, an alphabetic list by name of business or individual is kept with references to the subject/geographic area used in the main file for that business or person.

VIII. Micrographics and Computer Storage

Due to the "paperwork explosion" in the past several years, many businesses retain and file records in miniature or electronic form. These methods require expensive equipment and supplies. However, they can save both time and storage space which are also expensive operating costs to businesses. (TM 9)

- A. Records can be photographed, greatly reduced in size, and stored on microfilm or microfiche. Microfilm is commonly processed into a reel similar to picture reels. A microfiche is a card which holds several miniature individual pages which have been microfilmed. Both require special equipment so that the microimages can be enlarged and printed or projected for reading. (TM 10)
- B. Records can be source documents for entries into a computer system. Although pictures are not taken of the actual records, the important information can be stored on computer disk or tape for quick retrieval. The original record can then be filed in a cheaper, more distant place.

Vertical File Cabinet

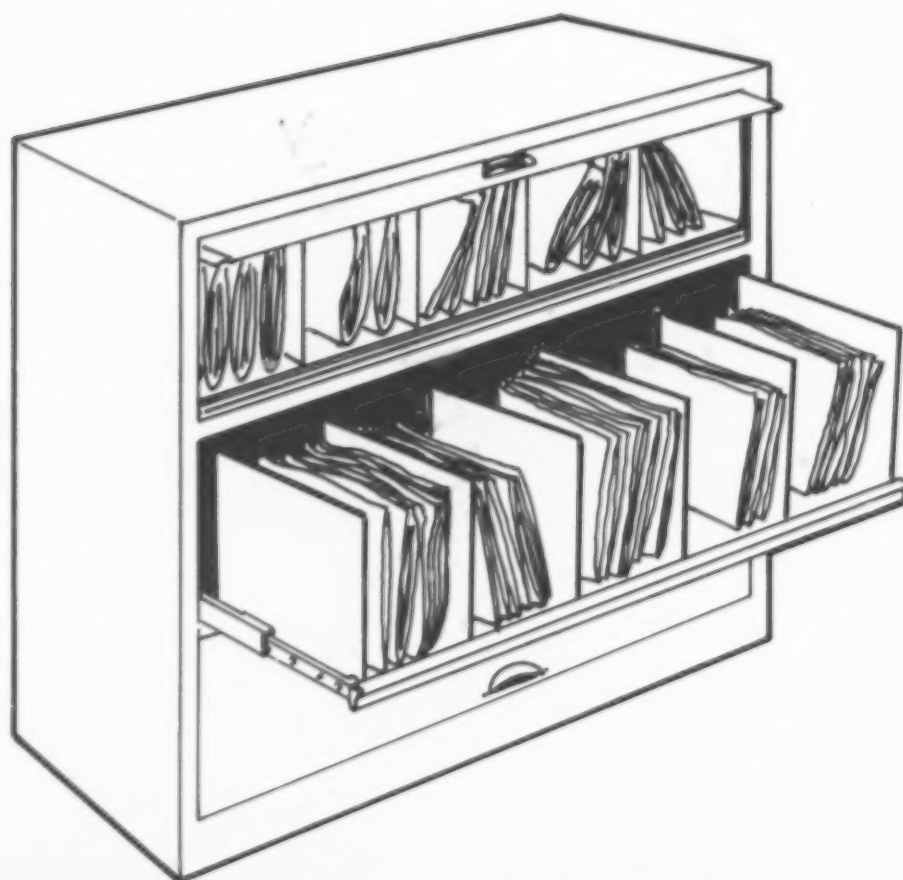


Available in 2-3-4-5-Drawer Stacks

Lateral File Cabinet



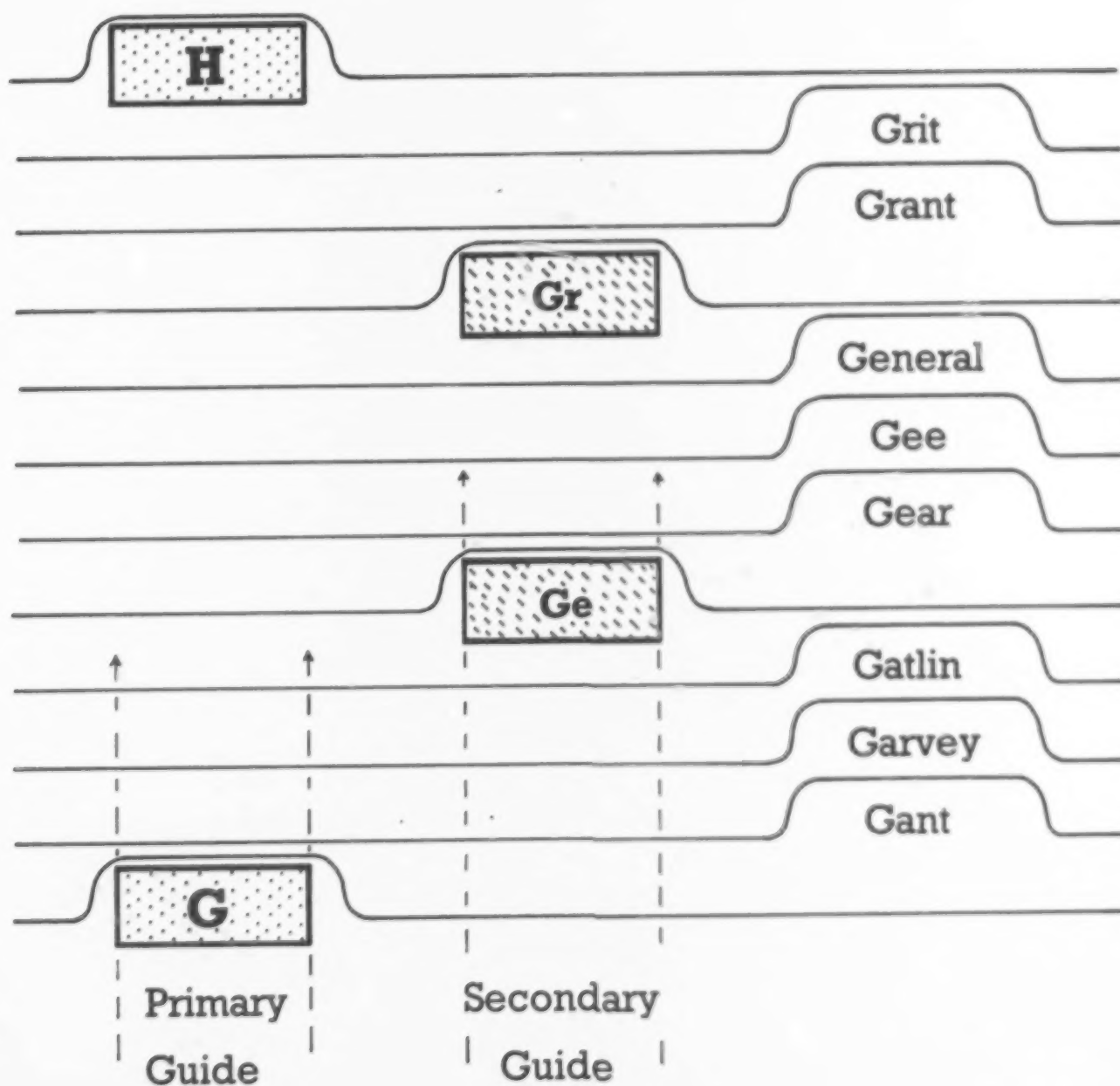
Open-Shelf Files



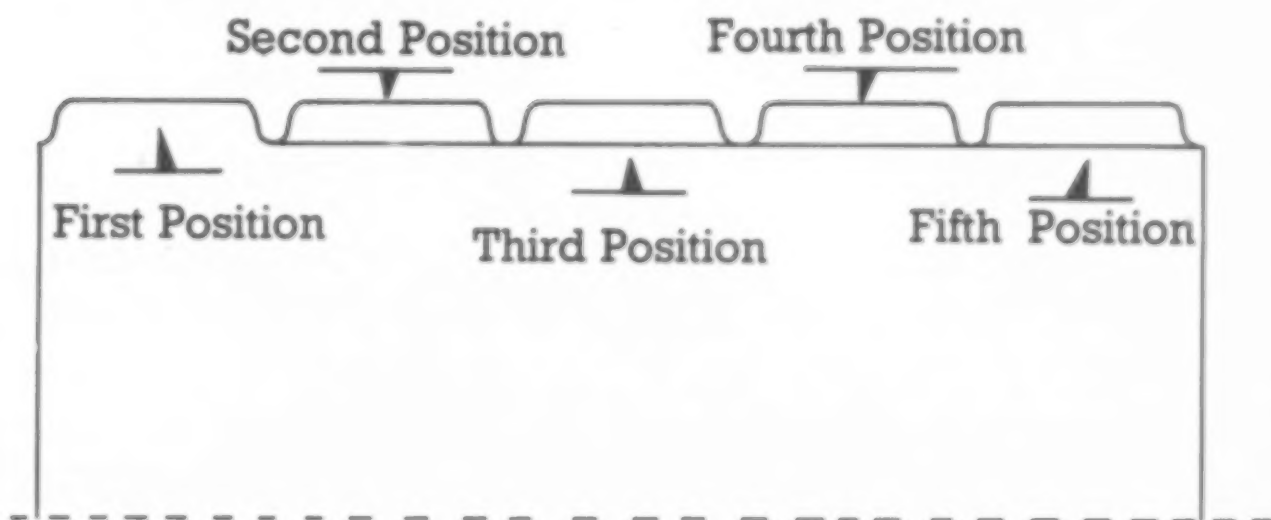
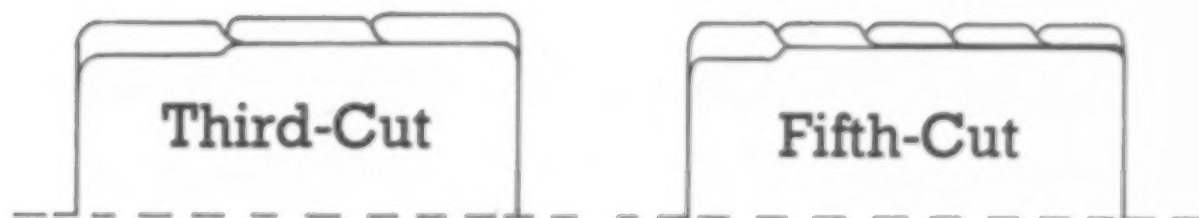
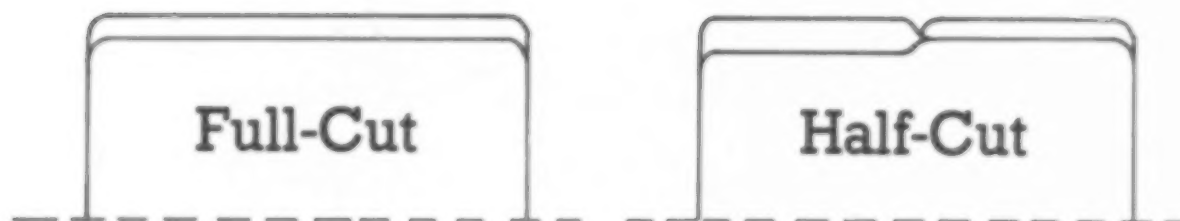
Shelves can slide out for easier access.

Shelves can have sliding covers.

File Guides

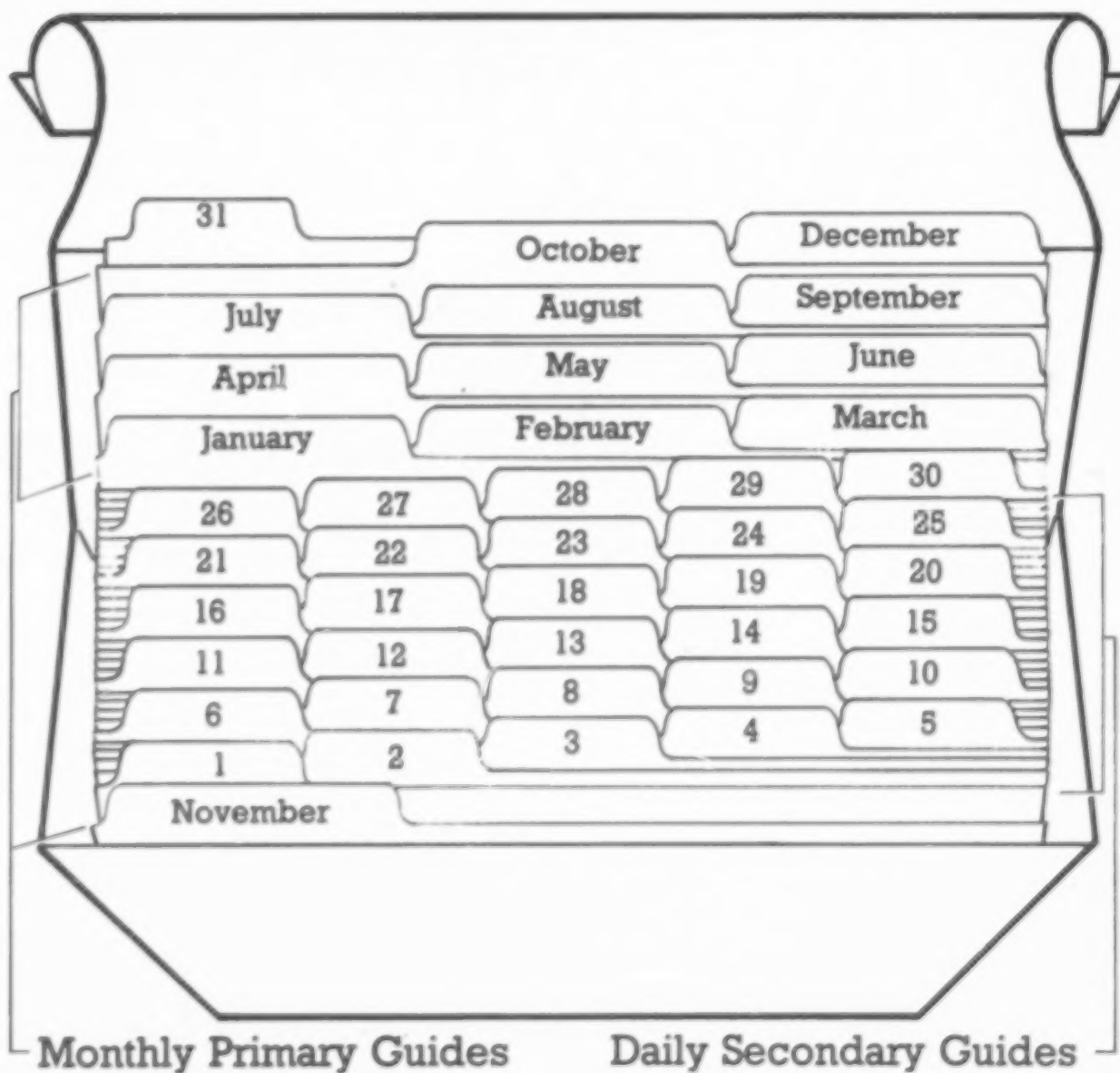


File Folders

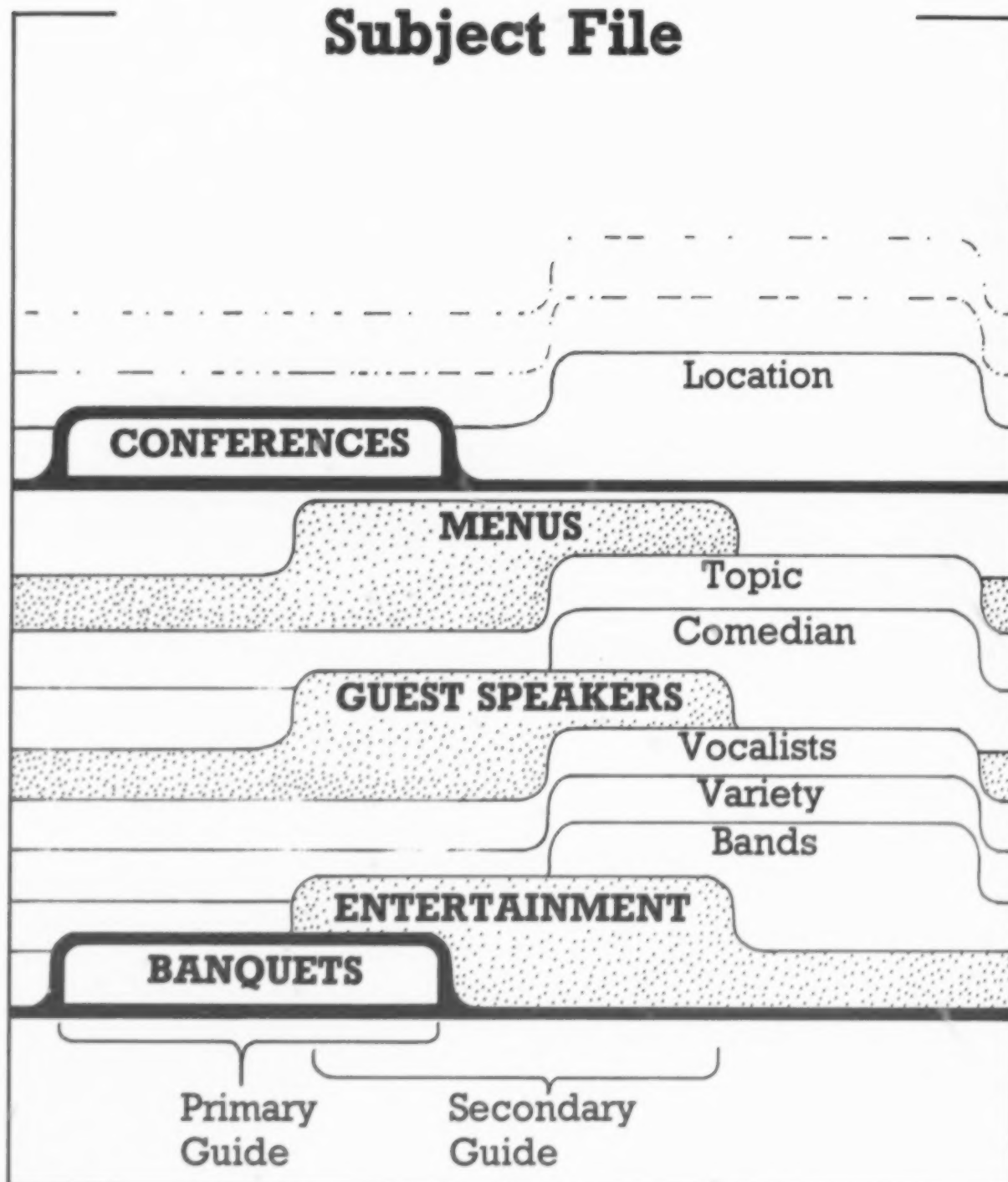


Card Tickler File

(A Chronological File)



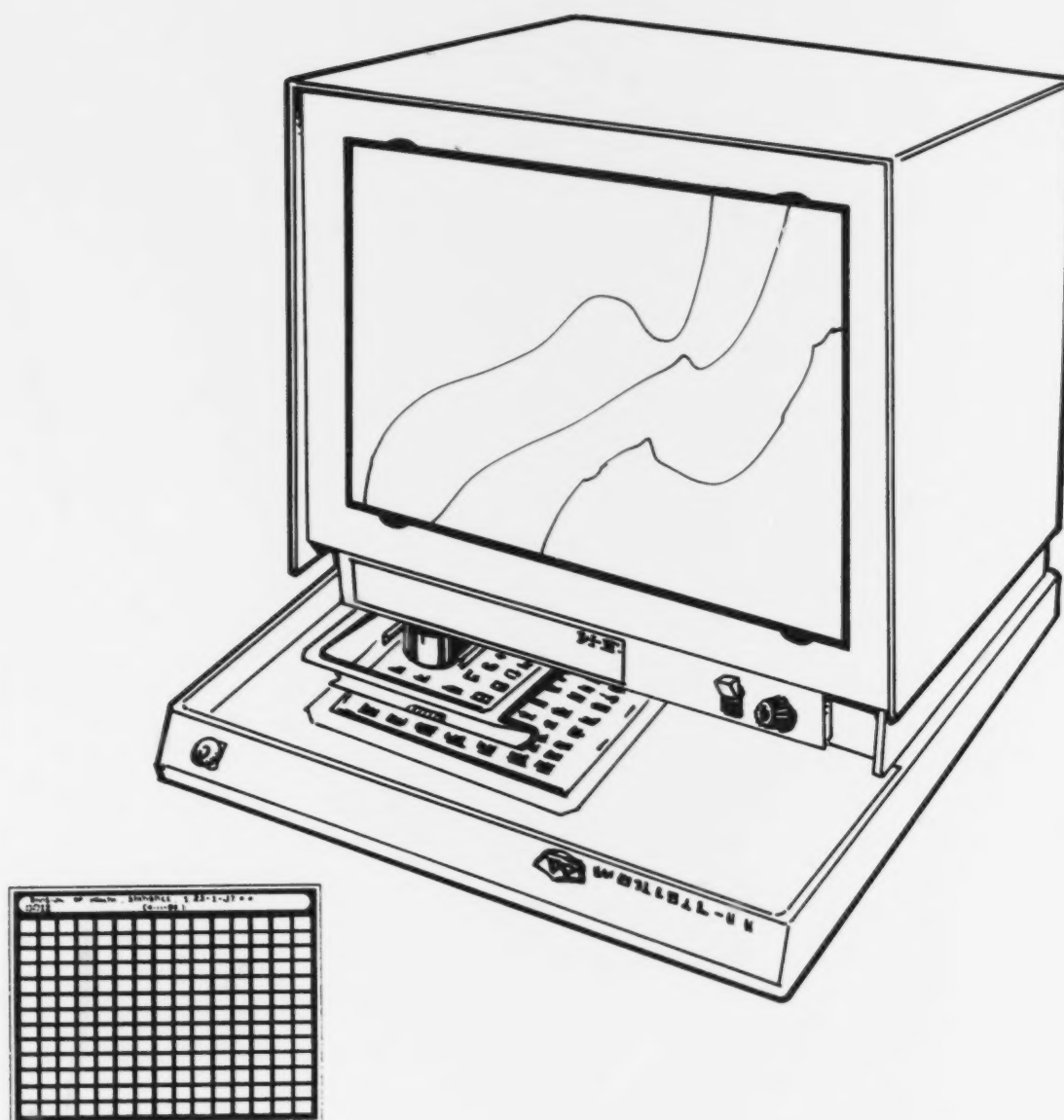
Subject File



Geographic File

		Southern
		Springfield
	Southern	Girardeau
		St. Louis Metro
		Hazelwood
	St. Louis Metro	Afton
		Northern
		Maryville
		Kirksville
	Northern	Kansas City Metro
		Raytown
		North Kansas City
	Kansas City Metro	Central
		Sedalia
		Columbia
MISSOURI	Central	
MID-WEST REGION		

Microfiche Reader



Unit V - Internal Services
Lesson 3 - Filing

ASSIGNMENT SHEET 1: Filing Terms

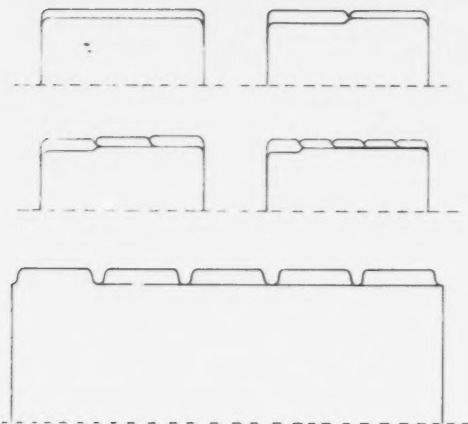
Directions: For each definition in Column 1, choose the correct term from Column 2. Write the letter of that term in the blank.

	Column 1	Column 2
_____	1. Determining the key word to be used as a basis for filing	A. Tickler file
_____	2. A chronological file used to remind you of future work	B. Micrographics
_____	3. A systematic method of requesting a record from a file	C. Cross-referencing
_____	4. A system of arranging records according to the alphabetic order of a key word	D. Requisitioning
_____	5. Media on which records are photographed in a reduced size for ease in storing and transporting	E. Indexing
_____	6. To mark off the key word(s) in filing order	F. Coding
_____	7. A system of arranging records alphabetically according to the content of the record	G. Numeric filing
_____	8. Heavy cardboard dividers marking sections of the file	H. Alphabetic filing
_____	9. Placement of tabs across the top of a guide or folder	I. Subject filing
_____	10. A chronological system of arranging records	J. Geographic filing
		K. Cut
		L. Guides
		M. Position

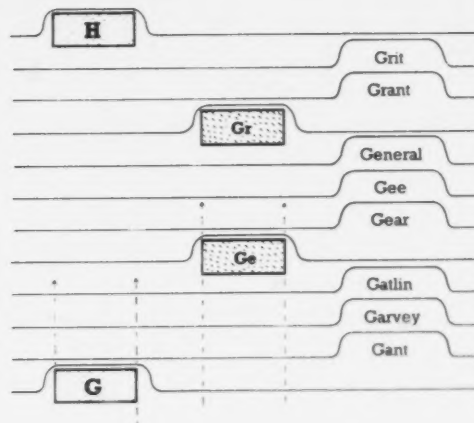
Unit V - Internal Services
Lesson 3 - Filing

ASSIGNMENT SHEET 2: Filing Equipment and Supplies

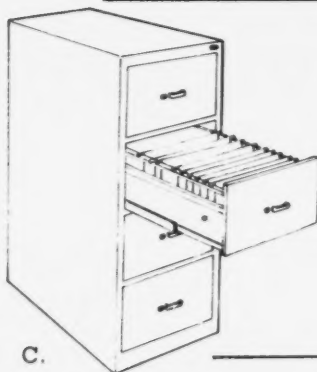
Directions: Identify the equipment or supplies shown in each diagram below. As indicated, also identify each part of the supplies. In the second blank provided, tell the use of each item.



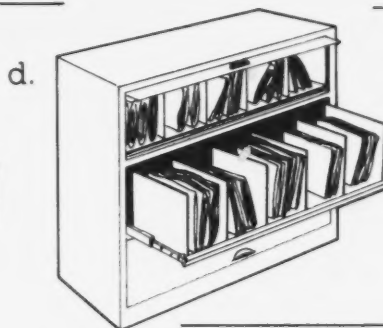
a.



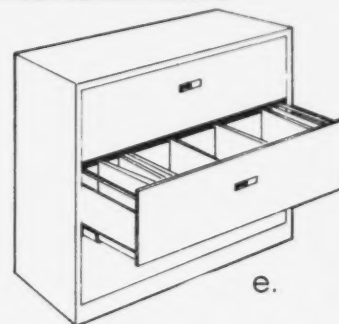
b.



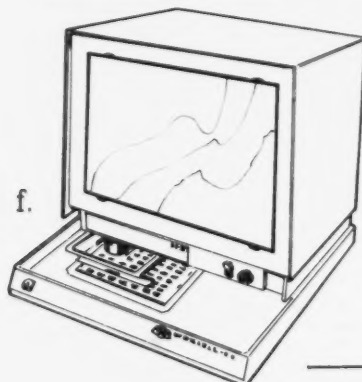
c.



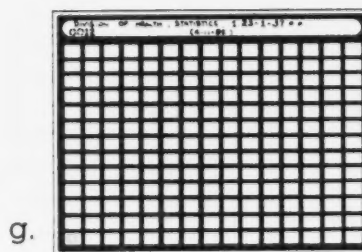
d.



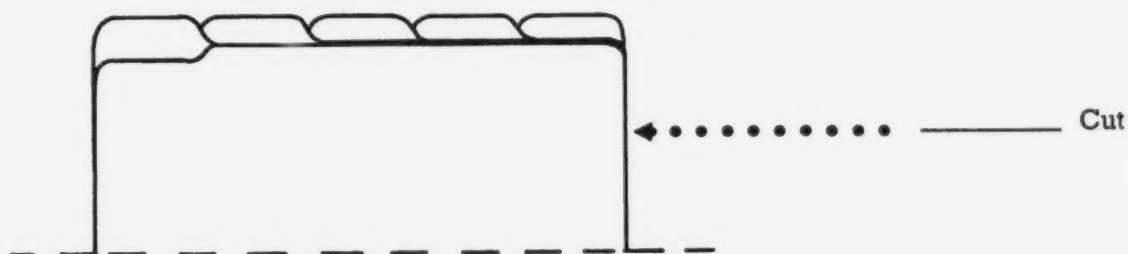
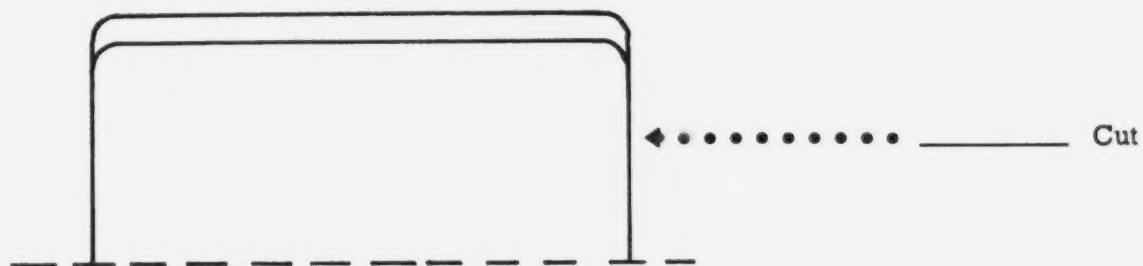
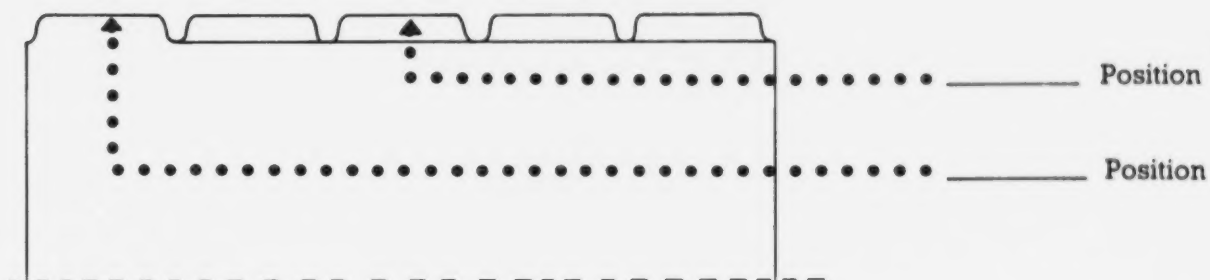
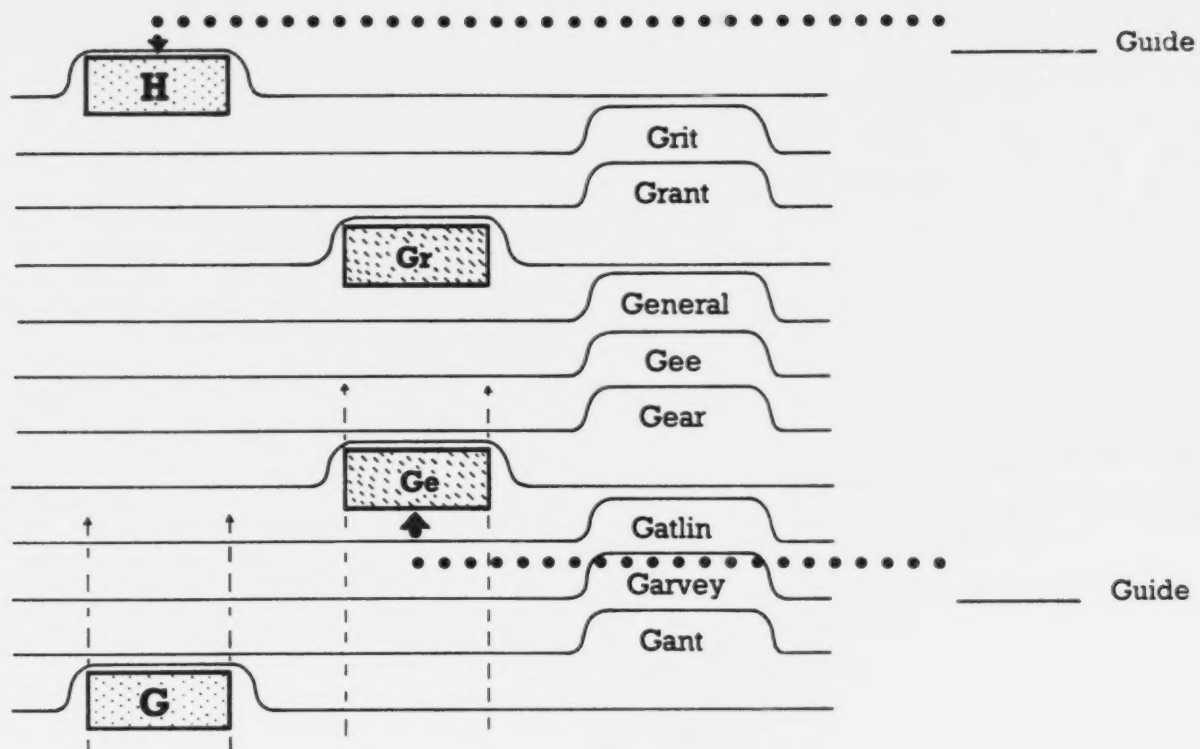
e.



f.



g.



Unit V - Internal Services
Lesson 3 - Filing

ASSIGNMENT SHEET 3: Indexing and Coding Names of Individuals

Directions: Rewrite each of the following names in correct index order; then indicate the filing order of the 7 names by writing numbers in the blanks to the left of each name.

Filing Order		Index Order
_____	1. Mrs. Opal T. Tinker	_____
_____	2. David R. Smith	_____
_____	3. Rev. Arthur Minyon	_____
_____	4. Mrs. Nancy E. Holt	_____
_____	5. Holton Smith	_____
_____	6. Grady O'Smith	_____
_____	7. Barbara R. Murray	_____

Unit V - Internal Services
Lesson 3 - Filing

ASSIGNMENT SHEET 4: Indexing and Coding Names of Businesses

- I. Directions: Use a local telephone book to identify a business which fits each filing rule (A-E) from your Information Sheet Part V. For each rule, list the name of the business you are using as an example plus the names listed immediately before and after it.

Rule	Example of Business Fitting This Rule	Business Immediately Before Example	Business Immediately Following Example
A			
B			
C			
D			
E			

II. Directions: Code and index each of the following business and agency names and indicate the alphabetical order in which they would be filed.

Filing
Order

Index Order

_____	1.	Jumpin' Joe's Burgers	_____
_____	2.	Radio Station KWSM	_____
_____	3.	Hotel Kennett	_____
_____	4.	First Bank of Odessa	_____
_____	5.	House of Pets	_____
_____	6.	Jorden Auto Parts	_____
_____	7.	Judge Bean's Bar-B-Que	_____
_____	8.	U.S. Department of Labor	_____
_____	9.	First Baptist Church of Dallas	_____
_____	10.	Syracuse Elementary School	_____

Unit V - Internal Services
Lesson 3 - Filing

ASSIGNMENT SHEET 5: Numeric Filing

Directions: Answer each of the following questions by briefly completing each statement.

1. A numeric filing system is known as INDIRECT because.

2. The three parts of a numeric filing system are:
 - a)
 - b)
 - c)

3. A type of numeric file which is used to remind you of future work is called a:

4. Name two types of records which lend themselves to numeric filing:
 - a)
 - b)

5. A numeric filing system is more confidential than an alphabetic system because:

6. List the following numbers in correct order.

330.45	310.75	150.35
230.10	120.62	230.35
220.85	210.75	350.05
250.02	130.60	200.95

Unit V - Internal Services
Lesson 3 - Filing

ASSIGNMENT SHEET 6: Subject and Geographic Filing

Directions: For each business on the following list, prepare both a subject and geographic file.

- I. For the subject file: Type an index card for each business. On the first line, type the case name. Double space, and type the name of the business, the address on two lines, and the case number. Arrange the cards in alphabetic order according to case name. As needed, consider business name second in determining filing order.
- II. For the geographic file: Type another index card for each business. On the first line, type the state, followed by the city. Double space, type the name of the business, followed by the complete two-line address, followed by case name and number. Arrange the cards in alphabetic order according to location.

1. Berryman Surveyors
675 North Main
Sparta, MO 65753
Case: L. Lawton
Case No. TrCv4-0381

7. Bennote Construction Co.
18 South Waylord
Columbia, MO 65201
Case: S. Elwin
Case No: NgCv4-1082

2. MedQuik
8398 Orange Road
Maryville, MO 64468
Case: L. Lawton
Case: TrCv4-0381

3. Acme Body Shop
344 Sinclair Road
Granby, MO 64844
Case: T. Rudden
Case No. DwCm8-0184

4. Convenience Clinic
4831 Adobe Street
Paris, MO 65275
Case: L. Steinhoffman
Case No. AsCr6-1282

5. St. Mary's Hospital Center
38 Hospital Drive
Kirksville, MO 63501
Case: T. Rudden
Case No. DwCm8-0184

6. Casey's Grill
384 Forester Road
Boonville, MO 65233
Case: B. Graas
Case No. CnCv4-0784

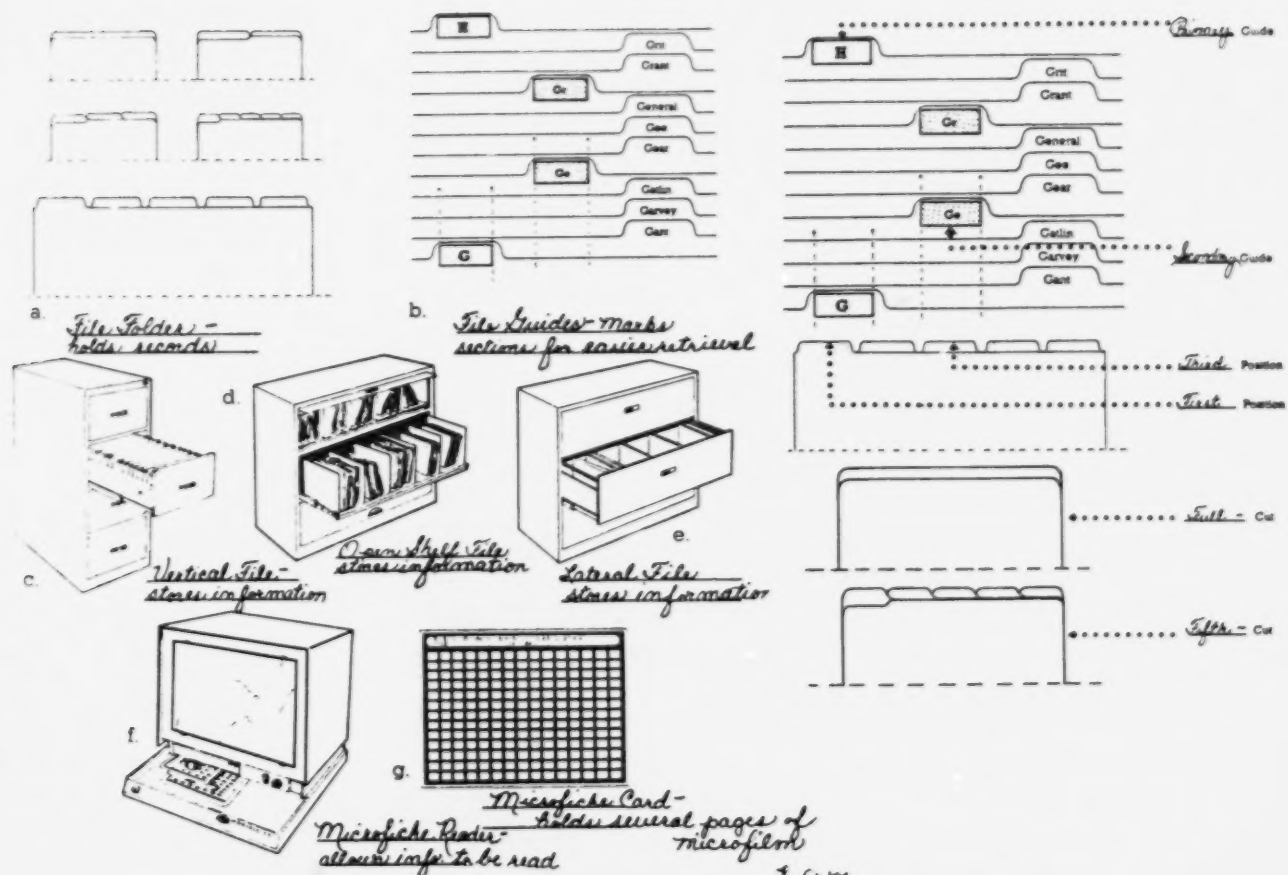
Unit V - Internal Services
Lesson 3 - Filing

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet 1:

1. Indexing (E)
2. Tickler file (A)
3. Requisitioning (D)
4. Alphabetic filing (H)
5. Micrographics (B)
6. Coding (F)
7. Subject filing (I)
8. Guides (L)
9. Position (M)
10. Numeric filing (G)

Assignment Sheet 2:



Assignment Sheet 3:

- | | | |
|---|----|---|
| 7 | 1. | Tinker, Opal T. (Mrs.) |
| 5 | 2. | Smith, David R. |
| 2 | 3. | Minyon, Arthur (Rev.) |
| 1 | 4. | Holt, Nancy E. (Mrs.) |
| 6 | 5. | Smith, Holton (May want to cross-reference in reverse order.) |
| 4 | 6. | O'Smith, Grady |
| 3 | 7. | Murray, Barbara R. |

Assignment Sheet 4:

- I. Answers from this part of the assignment will vary.
- II.
- | | | |
|----|-----|--|
| 7 | 1. | Jumping Joe('s) Burgers (completing the abbreviation of Jumpin') |
| 8 | 2. | K W S M Radio Station |
| 3 | 3. | Hotel Kennett |
| 1 | 4. | First Bank (of) Odessa |
| 4 | 5. | House (of) Pets |
| 5 | 6. | Jorden Auto Parts |
| 6 | 7. | Judge Bean('s) Bar-B-Que |
| 10 | 8. | United States Government, Labor Department (of) |
| 2 | 9. | First Baptist Church (of) Dallas |
| 9 | 10. | Syracuse Elementary School |

Assignment Sheet 5:

1. Records are not filed according to an apparent name or subject. Rather, you must first look up the assigned number, then you can find the record in the file.
2.
 - a) the main file where records are kept
 - b) the back-up alphabetic card file for use as a directory to assigned numbers
 - c) the number register which is a chronological listing of numbers used
3. Tickler file
4. Answers may vary--might include insurance policies, license numbers, student numbers, case numbers, order forms, invoices, social security numbers.
 - a)
 - b)
5. In order to find any record, you must first have access to the back-up card file.

6. 120.62
130.60
150.35
200.95
210.75
220.85
230.10
230.35
250.02
310.75
330.45
350.05

Assignment Sheet 6:

I. SUBJECT FILE: A sample card would look like:

L. Lawton

Berryman Surveyors
675 North Main
Sparta, MO 65753
Case No. TrCv4-0381

The correct order for the subject file is:

Bennote Construction Co. (S. Elwin)
Casey's Grill (B. Graas)
Berryman Surveyors (L. Lawton)
MedQuik (L. Lawton)
Acme Body Shop (T. Rudden)
St. Mary's Hospital Center (T. Rudden)
Convenience Clinic (L. Steinhoffman)

II. GEOGRAPHIC FILE: A sample card would look like:

Missouri, Springfield

Berryman Surveyors
675 North Main
Sparta, MO 65753
Case: L. Lawton
Case No. TrCv4-0381

The correct order for the geographic file is:

Casey's Grill (Missouri, Boonville)
Bennote Construction Co. (Missouri, Columbia)
Acme Body Shop (Missouri, Granby)
St. Mary's Hospital Center (Missouri, Kirksville)
MedQuik (Missouri, Maryville)
Convenience Clinic (Missouri, Paris)
Berryman Surveyors (Missouri, Sparta)

Unit V - Internal Services
Lesson 3 - Filing

POSTTEST

1. Show that you understand the terms and ideas presented in this lesson by completing each of the sentences. You should choose your answers from the following list:

RETRIEVING	HALF-CUT FILE FOLDERS
TICKLER FILE	ALPHABETIC FILING
MICROFICHE	SUBJECT FILING
CODING	NUMERIC FILING
INDEXING	GEOGRAPHIC FILING
VERTICAL FILING CABINETS	NUMBER REGISTER
FILE FOLDERS	GUIDE
FIFTH-CUT FILE FOLDERS	MICROFILM
THIRD POSITION	CROSS-REFERENCING
FIFTH POSITION	LATERAL FILING CABINETS
SHELF FILES	

1. The type of filing equipment which makes optimum use of floor space is _____ .
2. _____ hold the actual records in the filing cabinet.
3. _____ is to mark the record so that the index order can be easily seen.
4. A _____ system has three parts: the main file, a back-up card file and a number register.
5. A _____ is a card which holds several individual pages which have been microfilmed.
6. You would use _____ to be sure a name like "Jenner Smythe" could be found whether the correct last name was "Smythe" or "Jenner."
7. The tabs on third-cut file folders would be smaller than those on _____ .
8. On third-cut file folders, the tab farthest to the right would be in _____ .
9. Both subject and geographic filing are based upon a(n) _____ system.
10. The whole purpose of a filing system is to order records so that they can be found again when needed; finding the records is called _____ .

- II. For each of the following five records, indicate the correct order for alphabetic filing by name (Column 1), for subject filing by major area of study (Column 2), and for geographic filing according to permanent address (Column 3).

	COLUMN 1	COLUMN 2	COLUMN 3
1. Mary Beth Lucas Student No. 130488 Local address: 38A Broadway Columbia, MO 65201 Permanent Address: 138 Gravois Plato, MO 65552 Major: Art Education			
2. Joseph R. Barton Student No. 16898 Local Address: Route 11 Hallsville, MO 65255 Permanent Address: Route 11 Hallsville, MO 65255 Major: Accounting			
3. Denise Caryle Woods Student No. 16832 Local Address: 67-C Whitegate Columbia, MO 65202 Permanent Address: 7839 Walden Park Berryton, GA 30748 Major: Biology			
4. Susan Brown Student No. 14898 Local Address: Room 38, Dorm C Columbia, MO 65211 Permanent Address: 6078 Daphne Court Petaluma, CA 94952 Major: Elementary Education			
5. Caleb R. Peters Student No. 16032 Local Address: 1265C Old Mexico Road Columbia, MO 65201 Permanent Address: 690 Streathem Caruthersville, MO 63830 Major: Computer Science			

Unit V - Internal Services
Lesson 3 - Filing

POSTTEST KEY

- I.
1. Shelf Files
 2. File Folders
 3. Coding
 4. Numeric filing
 5. Microfiche
 6. Cross-referencing
 7. Half-cut file folders
 8. Third position
 9. Alphabetic filing
 10. Retrieving

II.

	COLUMN 1	COLUMN 2	COLUMN 3
1.	3	4	5
2.	1	1	4
3.	5	2	2
4.	2	5	1
5.	4	3	3

Unit V - Internal Services

Lesson 4 - Noncomputational Recording/Personnel Records

LESSON OBJECTIVES

1. Using a microcomputer and a filing/database software program, the student will enter the information and print out 12 filing labels in alphabetical order with 90 percent accuracy within 20 minutes.
2. Using a microcomputer and a filing/database program, the student will enter and retrieve information pertaining to 12 personnel records with 90 percent accuracy within 15 minutes.
3. Upon completion of this lesson, the student will be able to match 10 terms and definitions relating to company personnel records with 90 percent accuracy within 15 minutes.
4. Upon completion of this unit, the student will be able to identify 2 advantages of fringe benefits to the employee and 2 advantages to the employer with 75 percent accuracy within 10 minutes.
5. Upon completion of this lesson, the student will be able to transfer information from 9 personnel records to a Composite Benefit Selection Form with 90 percent accuracy within 30 minutes.
6. Upon completion of this lesson, the student will be able to list at least 4 techniques for accurate proofreading of records with 100 percent accuracy within 10 minutes.

SUGGESTED ACTIVITIES

I. Instructor

- A. In order to provide an exercise in noncomputational recording, the students will be introduced to terms and definitions involving fringe benefits. Thereby, the students will learn new business vocabulary as well as practice the recordkeeping involved.
- B. Although the particular fringe-benefit package presented is fictional, the students should recognize the advantages of the benefits and the costs to the employer of providing these benefits. As students make their individual choices in the fringe-benefit package, lively discussion should result.
- C. Objective and information sheets should be distributed and discussed with students.
- D. Make a transparency of the "Employee Selection Sheet" to facilitate classroom lecture.

- E. Prepare blank "Employee Selection Sheets" (HO 1) for each student to fill out.
- F. "Employee Selection Sheet" was completed for a number of fictional employees. Students can use these sheets to compile and record their choices. However, a teacher with twelve students or more may wish to simply compile the results of the student's choices.
- G. Lead a discussion on the advantages of a company offering a flexible benefit package to its employees.

II. Student

- A. After reading the objectives, study and learn the new terms for this lesson.
- B. Read the information sheets.
- C. Complete all Assignment Sheets.
- D. Take posttest.

INSTRUCTIONAL MATERIALS

I. Objective Sheet

II. Information Sheets

III. Handouts

- A. HO 1: Employee Selection Sheet
- B. HO 2: Employee Selection Sheets Completed by Fictional Employees
- C. HO 3: Composite Benefit Selection Form

IV. Transparency Master

- A. TM 1: Employee Selection Sheet

V. Assignment Sheets and Answers

- A. AS 1: Personnel Records--Terms and Definitions
- B. AS 2: Completing an Employee Selection Sheet
- C. AS 3: Compiling a Composite Benefit Selection Form/Typing a Table
- D. AS 4: Create a Database File and Generate Labels
- E. AS 5: Create a Database File and Retrieve Information

VI. Posttest and Key

Unit V - Internal Services

Lesson 4 - Noncomputational Recording/Personnel Records

INFORMATION SHEET

I. Terms and Definitions (AS 1)

- A. **Fringe Benefits**--a payment other than wages or salary made to an employee.
- B. **Flex-time**--a system that allows individual employees to choose the time, but not the number, of their working hours.
- C. **Group Health Insurance**--insurance covering the financial risk of illness/hospitalization available at lower cost to a group of similar-risk individuals, such as a group of employees. Sometimes the premiums are partially or fully paid by the employer.
- D. **Group Life Insurance**--insurance which pays off in case of death (or sometimes disability) which is available to employees at a lower cost than usual. Sometimes the premiums are partially or fully paid by the employer.
- E. **Group Dental Insurance**--insurance covering costs of dental care, which is available at a lower-than-usual cost to all employees of a firm. Sometimes the premiums are partially or fully paid by the employer.
- F. **Vacation**--a period of time when the employee does not have to report for work; free time; usually with wages/salary continued.
- G. **Compensatory Time**--time off allowed an employee who has worked extra time previously; for example, an employee who works three hours overtime one week would be allowed three hours off the next week.
- H. **Personal Leave**--time allowed an employee who needs to attend to personal business; wages may or may not continue.
- I. **Sick Leave**--time off allowed an employee who is ill.
 - 1. Usually sick leave is restricted to a set number of days.
 - 2. Wages may or may not be paid on sick leave days.
- J. **Emergency Leave**--time off allowed an employee who has unexpected need to leave work; wages may or may not continue.
- K. **Child Care**--babysitting services provided by the employer; employees may or may not be charged.

- L. **Discounts**--special low prices available to employees if they purchase company products.
- M. **Profit Sharing**--a percentage of the company's earnings that is returned to employees.
- N. **Stock Options**--a plan enabling employees to purchase shares in the company.
- O. **Overtime Pay**--extra amounts above the usual wage/salary paid to employees who work excess hours.

II. Advantages of Fringe Benefits to Employees (AS 2, HO 1, HO 2)

- A. Employees, because of health records, may be unable to obtain certain types of insurance.
- B. Employees may be unable to afford certain types of insurance since individual rates are higher than group rates.
- C. Fringe benefits such as flex-time, personal leave and child care allow employees to make their job fit their lifestyle and personal needs.
- D. Fringe benefits, such as stock options or profit sharing, allow the employees to afford investments they might otherwise feel are too expensive.
- E. Fringe benefits can help employees enjoy their jobs more. They perhaps feel the job does as much for them as they do for the job--so the job seems less like "work" and more like enjoyment.
- F. At the present time the non-cash payments of fringe benefits are not taxed, so the true dollar value to employees is actually more than the cost to the employer.

III. Advantages of Fringe Benefits to Employer (AS 3, HO 3)

- A. Employees who are happy at work are more productive.
- B. Employee turnover is usually lower for companies offering good fringe benefits.
- C. Fringe benefits made available to employees are usually also available to employers.

EMPLOYEE SELECTION SHEET

Sutter Sports Equipment, Inc., is pleased to announce an exciting new fringe benefit package to all employees. A new, wider variety of benefits is available to allow each employee to customize his/her fringe benefits. Sutter Sports hopes that each employee can have the fringe benefits most valuable to him/her.

Here is how it works--each fringe benefit is assigned a point value, determined by the cost to Sutter Sports. Each employee can select any benefit she/he wishes, as long as the total point value of benefits does not exceed the points available for his/her particular job and tenure. The total points available for each employee is already printed on his/her "Employee Selection Sheet."

Most of the fringe benefits are totally paid by Sutter Sports. However, a few involve cost to the employee. In such cases, the cost is indicated. If you choose that fringe benefit, the cost will be automatically deducted from your paycheck each month.

The group insurance plans available do require certain minimum enrollment. Should too few employees elect that benefit, we will be unable to offer such insurance. In that case, employees will be asked to choose another benefit instead of group insurance. Likewise, the Child Care facility must serve at least 20 children to be feasible. Should fewer than 20 be enrolled, we will ask employees to choose another fringe benefit.

Name: _____ Position: _____

Fringe Benefit Points: _____

CHECK HERE	BENEFIT	POINT VALUE	COST	MINIMUM NO. REQUIRED?
___	Group health insurance--employee	7		yes
___	--spouse	---	\$25/mo	
___	--children	---	\$45/mo	
___	Group life insurance	3	\$ 0	yes
___	Group dental insurance--employee	5	\$ 0	yes
___	--spouse	---	\$12/mo	
___	--children	---	\$30/mo	
___	Extended vacation--3 additional days	6	\$ 0	no
___	--5 additional days	9		
___	--7 additional days	12		
___	Extended sick leave--3 additional days	5	\$ 0	no
___	5 additional days	8		
___	7 additional days	10		
___	Child care--1 child	6	\$ 3/per child	yes
___	--2 children	8	per day	
___	--3 children	10		
___	--more			
___	Profit Sharing	1-10		no

EMPLOYEE SELECTION SHEETS COMPLETED BY FICTIONAL EMPLOYEES

Sutter Sports Equipment, Inc., is pleased to announce an exciting new fringe benefit package to all employees. A new, wider variety of benefits is available to allow each employee to customize his/her fringe benefits. Sutter Sports hopes that each employee can have the fringe benefits most valuable to him/her.

Here is how it works--each fringe benefit is assigned a point value, determined by the cost to Sutter Sports. Each employee can select any benefit she/he wishes as long as the total point value of benefits does not exceed the points available for his/her particular job and tenure. The total points available for each employee is already printed on his/her "Employee Selection Sheet."

Most of the fringe benefits are totally paid by Sutter Sports. However, a few involve cost to the employee. In such cases, the cost is indicated. If you choose that fringe benefit, the cost will be automatically deducted from your paycheck each month.

The group insurance plans available do require certain minimum enrollment. Should too few employees elect that benefit, we will be unable to offer such insurance. In that case, employees will be asked to choose another benefit instead of group insurance. Likewise, the Child Care facility must serve at least 20 children to be feasible. Should fewer than 20 be enrolled, we will ask employees to choose another fringe benefit.

Name: Sam SneedPosition: SalespersonFringe Benefit Points: 20

CHECK HERE	BENEFIT	POINT VALUE	COST	MINIMUM NO. REQUIRED?
☒	Group health insurance--employee	7		yes
☐	--spouse	---	\$25/mo	
☐	--children	---	\$45/mo	
☒	Group life insurance	3	\$ 0	yes
☐	Group dental insurance--employee	5	\$ 0	yes
☐	--spouse	---	\$12/mo	
☐	--children	---	\$30/mo	
☐	Extended vacation--3 additional days	6	\$ 0	no
☒	--5 additional days	9		
☐	--7 additional days	12		
☐	Extended sick leave--3 additional days	5	\$ 0	no
☐	5 additional days	8		
☐	7 additional days	10		
☐	Child care--1 child	6	\$ 3/per child	yes
☐	--2 children	8	per day	
☐	--3 children	10		
☐	--more			
☒	Profit Sharing	1-10		no

Name: Sara LundgrenPosition: StaffFringe Benefit Points: 20

CHECK HERE	BENEFIT	POINT VALUE	COST	MINIMUM NO. REQUIRED?
☒	Group health insurance--employee	7		yes
☒	--spouse	---	\$25/mo	
☒	--children	---	\$45/mo	
☒	Group life insurance	3	\$ 0	yes
☐	Group dental insurance--employee	5	\$ 0	yes
☐	--spouse	---	\$12/mo	
☐	--children	---	\$30/mo	
☐	Extended vacation--3 additional days	6	\$ 0	no
☐	--5 additional days	9		
☐	--7 additional days	12		
☒	Extended sick leave--3 additional days	5	\$ 0	no
☐	5 additional days	8		
☐	7 additional days	10		
☐	Child care--1 child	6	\$ 3/per child	yes
☐	--2 children	8	per day	
☐	--3 children	10		
☐	--more			
☒	Profit Sharing (5)	1-10		no

Name: Benjamin ZalokPosition: StaffFringe Benefit Points: 20

CHECK HERE	BENEFIT	POINT VALUE	COST	MINIMUM NO. REQUIRED?
☐	Group health insurance--employee	7		yes
☐	--spouse	---	\$25/mo	
☐	--children	---	\$45/mo	
☒	Group life insurance	3	\$ 0	yes
☐	Group dental insurance--employee	5	\$ 0	yes
☐	--spouse	---	\$12/mo	
☐	--children	---	\$30/mo	
☐	Extended vacation--3 additional days	6	\$ 0	no
☐	--5 additional days	9		
☐	--7 additional days	12		
☒	Extended sick leave--3 additional days	5	\$ 0	no
☐	5 additional days	8		
☐	7 additional days	10		
☐	Child care--1 child	6	\$ 3/per child	yes
☐	--2 children	8	per day	
☐	--3 children	10		
☐	--more			
☒	Profit Sharing (5)	1-10		no

Name: Jennifer OfficerPosition: SupervisorFringe Benefit Points: 30

CHECK HERE	BENEFIT	POINT VALUE	COST	MINIMUM NO. REQUIRED?
☒	Group health insurance--employee	7		yes
☒	--spouse	---	\$25/mo	
☒	--children	---	\$45/mo	
☒	Group life insurance	3	\$ 0	yes
☒	Group dental insurance--employee	5	\$ 0	yes
☒	--spouse	---	\$12/mo	
☒	--children	---	\$30/mo	
☒	Extended vacation--3 additional days	6	\$ 0	no
☒	--5 additional days	9		
☒	--7 additional days	12		
☒	Extended sick leave--3 additional days	5	\$ 0	no
☒	5 additional days	8		
☒	7 additional days	10		
☒	Child care--1 child	6	\$ 3/per child	yes
☒	--2 children	8	per day	
☒	--3 children	10		
☒	--more			
☒	Profit Sharing (3)	1-10		no

Name: Derek RummelyPosition: Assistant ManagerFringe Benefit Points: 23

CHECK HERE	BENEFIT	POINT VALUE	COST	MINIMUM NO. REQUIRED?
☒	Group health insurance--employee	7		yes
☒	--spouse	---	\$25/mo	
☒	--children	---	\$45/mo	
☒	Group life insurance	3	\$ 0	yes
☒	Group dental insurance--employee	5	\$ 0	yes
☒	--spouse	---	\$12/mo	
☒	--children	---	\$30/mo	
☒	Extended vacation--3 additional days	6	\$ 0	no
☒	--5 additional days	9		
☒	--7 additional days	12		
☒	Extended sick leave--3 additional days	5	\$ 0	no
☒	5 additional days	8		
☒	7 additional days	10		
☒	Child care--1 child	6	\$ 3/per child	yes
☒	--2 children	8	per day	
☒	--3 children	10		
☒	--more			
☒	Profit Sharing (2)	1-10		no

COMPOSITE BENEFIT SELECTION FORM

Group health insurance (Minimum needed: 6)	
Employee	_____
Spouse	_____
Children	_____
Group life insurance (Minimum needed: 4) _____	

Group dental insurance (Minimum needed: 4)	
Employee	_____
Spouse	_____
Children	_____
Extended vacation	3 days _____
	5 days _____
	7 days _____
Extended sick leave	3 days _____
	5 days _____
	7 days _____
Child care (Minimum children: 20)	
No. of children	_____
Profit sharing	
No. of units	_____

Find totals for number enrolled in each program. If minimums are not met in any category, circle that total in red. Also write that information on the employee selection sheet for affected employees in red ink.

Unit V - Internal Services

Lesson 4 - Noncomputational Recording/Personnel Records

ASSIGNMENT SHEET 1: Personnel Records--Terms and Definitions

Directions: For each definition in Column 1, choose the correct term from Column 2. Write the letter of that term in the blank.

Column 1	Column 2
_____ 1. A system that allows individuals to choose the time, but not the number of their working hours.	A. Vacation
_____ 2. A percentage of the company's earnings that is returned to employees.	B. Emergency Leave
_____ 3. Babysitting services provided by the employer.	C. Sick Leave
_____ 4. Time off allowed an employee who has unexpected need to leave work, such as a death in the family.	D. Personal Leave
_____ 5. Time off allowed an employee who has previously worked extra time.	E. Child Care
_____ 6. Insurance covering the financial risk of illness/hospitalization which is available to members of a group at a lower rate.	F. Fringe Benefits
_____ 7. A plan in which the employees of a company can choose to purchase shares in the company.	G. Flex-time
_____ 8. A period of time when the employee does not have to report for work; free time.	H. Stock Options
_____ 9. Insurance which pays off in case of death; available to employees at a lower rate.	I. Profit Sharing
_____ 10. A payment other than wages or salary made to an employee.	J. Discounts
	K. Compensatory Time
	L. Group dental insurance
	M. Group life insurance
	N. Group health insurance

Unit V - Internal Services

Lesson 4 - Noncomputational Recording/Personnel Records

ASSIGNMENT SHEET 2: Completing an Employee Selection Sheet

Directions: After studying the various fringe benefits available to you as an employee of Sutter Sports Equipment, Inc., choose the benefit package which seems best to you. Since you are a new employee at Sutter, you are entitled to 15 benefit points.

EMPLOYEE SELECTION SHEET

Sutter Sports Equipment, Inc., is pleased to announce an exciting new fringe benefit package to all employees. A new, wider variety of benefits is available to allow each employee to customize his/her fringe benefits. Sutter Sports hopes that each employee can have the fringe benefits most valuable to him/her.

Here is how it works--each fringe benefit is assigned a point value, determined by the cost to Sutter Sports. Each employee can select any benefit she/he wishes as long as the total point value of benefits does not exceed the points available for his/her particular job and tenure. The total points available for each employee is already printed on his/her "Employee Selection Sheet."

Most of the fringe benefits are totally paid by Sutter Sports. However, a few involve cost to the employee. In such cases, the cost is indicated. If you choose that fringe benefit, the cost will be automatically deducted from your paycheck each month.

The group insurance plans available do require certain minimum enrollment. Should too few employees elect that benefit, we will be unable to offer such insurance. In that case, employees will be asked to choose another benefit instead of group insurance. Likewise, the Child Care facility must serve at least 20 children to be feasible. Should fewer than 20 be enrolled, we will ask employees to choose another fringe benefit.

Name: _____ Position: _____

Fringe Benefit Points: _____

CHECK HERE	BENEFIT	POINT VALUE	COST	MINIMUM NO. REQUIRED?
___	Group health insurance--employee	7		yes
___	--spouse	---	\$25/mo	
___	--children	---	\$45/mo	
___	Group life insurance	3	\$ 0	yes
___	Group dental insurance--employee	5	\$ 0	yes
___	--spouse	---	\$12/mo	
___	--children	---	\$30/mo	
___	Extended vacation--3 additional days	6	\$ 0	no
___	--5 additional days	9		
___	--7 additional days	12		
___	Extended sick leave--3 additional days	5	\$ 0	no
___	5 additional days	8		
___	7 additional days	10		
___	Child care--1 child	6	\$ 3/per child	yes
___	--2 children	8	per day	
___	--3 children	10		
___	--more			
___	Profit Sharing	1-10		no

Name: _____

Position: _____

Fringe Benefit Points: _____

CHECK HERE	BENEFIT	POINT VALUE	COST	MINIMUM NO. REQUIRED?
_____	Group health insurance--employee	7		yes
_____	--spouse	---	\$25/mo	
_____	--children	---	\$45/mo	
_____	Group life insurance	3	\$ 0	yes
_____	Group dental insurance--employee	5	\$ 0	yes
_____	--spouse	---	\$12/mo	
_____	--children	---	\$30/mo	
_____	Extended vacation--3 additional days	6	\$ 0	no
_____	--5 additional days	9		
_____	--7 additional days	12		
_____	Extended sick leave--3 additional days	5	\$ 0	no
_____	5 additional days	8		
_____	7 additional days	10		
_____	Child care--1 child	6	\$ 3/per child	yes
_____	--2 children	8	per day	
_____	--3 children	10		
_____	--more			
_____	Profit Sharing	1-10		no

Name: _____

Position: _____

Fringe Benefit Points: _____

CHECK HERE	BENEFIT	POINT VALUE	COST	MINIMUM NO. REQUIRED?
_____	Group health insurance--employee	7		yes
_____	--spouse	---	\$25/mo	
_____	--children	---	\$45/mo	
_____	Group life insurance	3	\$ 0	yes
_____	Group dental insurance--employee	5	\$ 0	yes
_____	--spouse	---	\$12/mo	
_____	--children	---	\$30/mo	
_____	Extended vacation--3 additional days	6	\$ 0	no
_____	--5 additional days	9		
_____	--7 additional days	12		
_____	Extended sick leave--3 additional days	5	\$ 0	no
_____	5 additional days	8		
_____	7 additional days	10		
_____	Child care--1 child	6	\$ 3/per child	yes
_____	--2 children	8	per day	
_____	--3 children	10		
_____	--more			
_____	Profit Sharing	1-10		no

Name: _____

Position: _____

Fringe Benefit Points: _____

CHECK HERE	BENEFIT	POINT VALUE	COST	MINIMUM NO. REQUIRED?
_____	Group health insurance--employee	7		yes
_____	--spouse	---	\$25/mo	
_____	--children	---	\$45/mo	
_____	Group life insurance	3	\$ 0	yes
_____	Group dental insurance--employee	5	\$ 0	yes
_____	--spouse	---	\$12/mo	
_____	--children	---	\$30/mo	
_____	Extended vacation--3 additional days	6	\$ 0	no
_____	--5 additional days	9		
_____	--7 additional days	12		
_____	Extended sick leave--3 additional days	5	\$ 0	no
_____	5 additional days	8		
_____	7 additional days	10		
_____	Child care--1 child	6	\$ 3/per child	yes
_____	--2 children	8	per day	
_____	--3 children	10		
_____	--more			
_____	Profit Sharing	1-10		no

Unit V - Internal Services**Lesson 4 - Noncomputational Recording/Personnel Records****ASSIGNMENT SHEET 3: Compiling a Composite Benefit Selection Form/Typing a Table**

Directions: Use a pencil to transfer the information from all completed "Employee Selection Sheets," including the one you completed, to a Composite Benefit Selection form below. Be sure to follow the instructions at the bottom of the Composite Benefit Selection sheet. Finally, design and type a table showing the overall results; proofread to be sure your table is complete and accurate.

COMPOSITE BENEFIT SELECTION FORM

Group health insurance (Minimum needed: 6)	
Employee	_____
Spouse	_____
Children	_____
Group life insurance (Minimum needed: 4) _____	

Group dental insurance (Minimum needed: 4)	
Employee	_____
Spouse	_____
Children	_____
Extended vacation	3 days _____
	5 days _____
	7 days _____
Extended sick leave	3 days _____
	5 days _____
	7 days _____
Child care (Minimum children: 20)	
No. of children	_____
Profit sharing	
No. of units	_____

Find totals for number enrolled in each program. If minimums are not met in any category, circle that total in red. Also write that information on the employee selection sheet for affected employees in red ink.

Unit V - Internal Services

Lesson 4 - Noncomputational Recording/Personnel Records

ASSIGNMENT SHEET 4: Create a Database File and Generate Labels

Directions: Follow the instructions below to create a database file and print labels for twelve records.

A. Equipment and materials needed

1. Microcomputer with one or two disk drives
2. Electronic filing/database software package
3. Data disk

B. Procedure

1. Boot the system with the program disk in the primary drive according to the documentation of your software.
2. Insert data disk in second drive (if available).
3. Choose the option to make/create/design a new file for the database.
4. Name the file "Filelabs."
5. Identify the following categories: First Name, Last Name, and Social Security.
6. Enter the following data for each record:

Record 1 of 12 Jimmy
 Jones
 368-54-7821

Record 2 of 12 Virginia
 Arnold
 776-54-3817

Record 3 of 12 Sanchos
 Enrico
 686-66-8753

Record 4 of 12 Joseph
 Vanderbilt
 443-21-8678

Record 5 of 12 Pam
 Johnston
 776-49-8391

Record 6 of 12 Jennifer
Young
669-15-4381

Record 7 of 12 Mavis
Marvin
405-63-1388

Record 8 of 12 Barry
Craigmyle
697-55-4133

Record 9 of 12 Susan
Kasper
445-77-7789

Record 10 of 12 Mike
Link
382-14-6832

Record 11 of 12 Mark
Little
686-50-4096

Record 12 of 12 Loretta
Vandiver
722-36-4783

7. Be sure to review and correct all records.
8. Design a label format.
9. Print out 12 file labels with two lines on each label--First Name and Last Name on the first line and Social Security number on the second line (records should be sorted to alpha order by last name before being printed).
10. Be sure to save the "Filelabs" file to your data disk before turning off the computer.

Unit V - Internal Services

Lesson 4 - Noncomputational Recording/Personnel Records

ASSIGNMENT SHEET 5: Create a Database File and Retrieve Information

Directions: Follow the procedures below to create a database file. Then retrieve the information necessary to answer the questions in Step 8.

A. Equipment and materials needed

1. Microcomputer with one or two disk drives
2. Electronic filing/database software package
3. Data disk

B. Procedure

1. Boot the system with the program disk in the primary drive according to the documentation of your software.
2. Insert data disk in second drive (if available).
3. Choose the option to make/create/design a new file for the data base.
4. Name the file "Personnel."
5. Identify the following categories: First Name, Last Name, Address, City, State, ZIP, Social Security, and Sex.
6. Enter the following data for each record:

Record 1 of 12 Curt
 Calvin
 303 East Street
 Woodville
 CA
 93137
 368-54-7821
 Male

Record 2 of 12 Virginia
 Huegel
 7831 Parkside Drive
 Ridgewood
 CA
 93132
 776-54-3817
 Female

Record 3 of 12	Sanchos Enrico 254 Greentree Lane Hickory Hills CA 93186 686-66-8753 Male
Record 4 of 12	Joseph Casper 315 Robbinette Woodville CA 93137 443-21-8678 Male
Record 5 of 12	Pam Johnson 415 North Boulevard Ridgewood CA 93132 776-49-8391 Female
Record 6 of 12	Jennifer Older 505 East Road Ridgewood CA 93132 669-15-4381 Female
Record 7 of 12	Mavis Jones 336 Husker Boulevard Ridgewood CA 93132 405-63-1388 Male
Record 8 of 12	Barry Resa 606 South Providence Woodville CA 93137 697-55-4133 Male

Record 9 of 12 Susan
 Kasper
 1222 Fairview Road
 Woodville
 CA
 93137
 445-77-7789
 Female

Record 10 of 12 Mike
 Whiting
 12 East Ninth Street
 Hickory Hills
 CA
 93186
 382-14-6832
 Male

Record 11 of 12 Mark
 Swanson
 1369 Broadway
 Hickory Hills
 CA
 93186
 686-50-4096
 Male

Record 12 of 12 Loretta
 Arnold
 222 Steward Road
 Woodville
 CA
 93137
 722-36-4783
 Female

7. Be sure to review and correct all records.
8. Using your filing/database program and data disk containing the 12 personnel records, retrieve the following information from your records on the disk and enter the appropriate answers in the blanks provided below:

Electronic Filing/Database Report

- a. How many employees have a Woodville address? _____
- b. How many records for female employees are contained in the file? _____
- c. How many records for male employees are contained in the file? _____
- d. How many employees have a 93121 ZIP Code? _____

- e. What is the street address of Loretta Arnold? _____
 - f. How many employees have a Hickory Hills address? _____
 - g. How many employees have the last name Casper
or Kasper? _____
 - h. What is the street address of Mike Whiting? _____
 - i. How many male employees live in Hickory Hills? _____
 - j. How many female employees live in Woodville? _____
 - k. How many employees have a Ridgewood address? _____
 - l. What is the street address of Virginia Huegel? _____
 - m. What is the Social Security number of
Mavis Jones? _____
 - n. We have an employee named Mark Swensen or
Swanson. Which is the correct spelling? _____
 - o. How many female employees live in the 93121
ZIP Code area? _____
9. Be sure to save the "Personnel" file to your data disk before
turning off the computer.

Unit V - Internal Services
Lesson 4 - Noncomputational Recording/Personnel Records

ANSWERS TO ASSIGNMENT SHEET

ASSIGNMENT SHEET 1:

- | | | | |
|----------------------|-----|---------------------------|-----|
| 1. Flex-Time | (G) | 6. Group health insurance | (N) |
| 2. Profit Sharing | (I) | 7. Stock Options | (H) |
| 3. Child Care | (E) | 8. Vacation | (A) |
| 4. Emergency Leave | (B) | 9. Group life insurance | (M) |
| 5. Compensatory Time | (K) | 10. Fringe Benefits | (F) |

ASSIGNMENT SHEET 2:

Answers will vary according to individual student choices. No student should exceed 15 benefit points, however.

ASSIGNMENT SHEET 3:

Answers on the Composite Benefit Selection Form will vary according to the choices made by your student(s), especially if you use your class as the employee group rather than the fictional employees provided.

Table format will vary. Since proofreading is a targeted skill in this assignment, you may wish to ask students to check each others work.

ASSIGNMENT SHEET 4:

File: Filelabs
Report: Alpha List

Virginia Arnold
776-54-3817

Barry Craigmyle
697-55-4133

Sanchos Enrico
686-66-8753

Pam Johnston
776-49-8391

Jimmy Jones
368-54-7821

Susan Kasper
445-77-7789

Mike Link
382-14-6832

Mark Little
686-50-4096

Mavis Marvin
405-63-1388

Joseph Vanderbilt
443-21-8678

Loretta Vandiver
722-36-4783

Jennifer Young
669-15-4381

ASSIGNMENT SHEET 5:

File: PERSONNEL
Report: Personnel2

Page 1

First Name	Last Name	Address	City	State	ZIP	Social Security	Sex
Curt	Calvin	303 East Street	Woodville	CA	93137	368-54-7821	Male
Virginia	Huegel	7831 Parkside Drive	Ridgewood	CA	93132	776-54-1817	Female
Sanchos	Enrico	254 Greentree Lane	Hickory H	CA	93187	686-66-8753	Male
Joseph	Casper	315 Robbinette	Woodville	CA	93137	443-21-8678	Male
Pam	Johnson	415 North Boulevard	Ridgewood	CA	93132	776-49-8391	Female
Jennifer	Older	505 East Road	Ridgewood	CA	93132	669-15-4381	Female
Mavis	Jones	336 Husker Boulevar	Ridgewood	CA	93132	405-63-1388	Male
Barry	Resa	606 South Providenc	Woodville	CA	93137	697-55-4133	Male
Susan	Kasper	1222 Fairview Road	Woodville	CA	93137	445-77-7789	Female
Mike	Whiting	12 East Ninth Stree	Hickory H	CA	93187	382-14-6832	Male
Mark	Swanson	1369 Broadway	Hickory H	CA	93186	686-50-4096	Male
Loretta	Arnold	222 Steward Road	Woodville	CA	93137	722-36-4783	Female

8.
 - a. 5
 - b. 5
 - c. 7
 - d. 0
 - e. 222 Steward Road
 - f. 3
 - g. 2
 - h. 12 East Ninth Street
 - i. 3
 - j. 2
 - k. 4
 - l. 7831 Parkside Drive
 - m. 405-63-1388
 - n. Swanson
 - o. 0

Unit V - Internal Services

Lesson 4 - Noncomputational Recording/Personnel Records

POSTTEST

- I. From the following list of terms, choose the one which best completes each statement.

GROUP LIFE INSURANCE
GROUP DENTAL INSURANCE
GROUP HEALTH INSURANCE
PERSONAL LEAVE
COMPENSATORY TIME
SICK LEAVE
STOCK OPTIONS
DISCOUNT
PROFIT SHARING
CHILD CARE
OVERTIME PAY
FLEX-TIME

1. If you talked to an insurance agent about purchasing protection for your immediate family in case anyone in the family needed hospitalization, you would find that this individual policy would cost more than _____.
2. Some companies allow employees to take time off work to attend to personal business, such as visits to an attorney; this is called _____.
3. Since you worked eight extra hours last month, your employer allows you to miss work eight hours this month; this is called _____.
4. Employees of the Shears Department Store are able to purchase anything in the store for 10% less than the regular price; this is called an employee _____.
5. If you work extra hours, you will be paid more than your usual hourly wage; this is called _____.
6. Both Mike and Ben work 40 hours a week at their company. However, Mike works 10 hours a day for 4 days and Ben works 8 hours a day for 5 days. This is an example of _____.
7. At Sarah's job, a nursery is provided for the children of employees; this is an example of _____.
8. At Margory's job, each employee can miss no more than 5 days per year for illness; this is an example of _____.

9. BCD Company pays for an insurance policy which would pay \$5,000 upon the death of any employee; this is an example of a _____.

10. At the end of each year, the Stockton Company divides part of its earnings among all employees; this is an example of _____.

- II. List two advantages of fringe benefits to the employee; list two advantages of fringe benefits to the employer.

To the employee:

1.

2.

To the employer:

1.

2.

Unit V - Internal Services

Lesson 4 - Noncomputational Recording/Personnel Records

POSTTEST KEY

- I. 1. group health insurance
2. personal leave
3. compensatory time
4. discount
5. overtime pay
6. flex-time
7. child care
8. sick leave
9. group life insurance
10. profit-sharing
- II. Students are to list only two advantages to the employee and to the employer. Answers will vary; possible answers include the following:
- To the employee:
1. Employee may be unable to obtain certain types of insurance as an individual.
 2. Group plans are less expensive.
 3. Fringe benefits help customize the job to the employee.
 4. Fringe benefits can help employees with investments.
 5. Fringe benefits can make the job more enjoyable.
 6. Most fringe benefits are not taxed as wages.
- To the employer:
1. Fringe benefits make for happier, more productive employees.
 2. Fringe benefits help lower turnover.
 3. Employer can also take advantage of the benefits offered to employees.

Unit V - Internal Services
Lesson 5 - Reprographics

LESSON OBJECTIVE

Upon completion of this lesson, the student will be able to prepare one master copy for reproduction within 90 minutes with 100 percent accuracy.

SUGGESTED ACTIVITIES

I. Instructor

- A. Since few businesses use stencil or fluid duplicators, students should demonstrate only a familiarity with these processes.
 - 1. Expertise in this area is not necessary. It is suggested that little class time be devoted to practicing these methods. If your class is available to assist faculty, perhaps the student will learn both stencil and fluid duplication processes as they work at stations in the school.
 - 2. However, we should note that parts of the learning process associated with both stencil/fluid duplicators transfer to any type of reprographics.
- B. Objective and information sheets should be distributed and discussed with students.
- C. Prepare transparency master to aid in classroom lecture.
- D. A field trip to area businesses may be planned to acquaint students with the type of reprographics used locally. Also, you may wish to assign students to interview clerical workers in local businesses about their use of reprographics.
- E. This unit is an ideal time to introduce software packages which relate to reprographics.
- F. Have students complete all Assignment Sheets.
 - 1. Students should have error correction materials, such as liquid correction fluid and correction tape.
 - 2. Additional materials needed for student use include rubber cement, scissors, rulers and, if possible, a lightboard for paste-up work.
- G. Give posttest.

II. Student

- A. After reading the objectives, study and learn the new terms for this lesson.
- B. Read the information sheets.
- C. Complete all Assignment Sheets.
- D. Take posttest.

INSTRUCTIONAL MATERIALS

- I. Objective Sheet
- II. Information Sheets
- III. Transparency Master
 - A. TM 1: Convenience Copier
- IV. Assignment Sheet and Answers
 - A. AS 1: Preparing a Master for a Copier
 - B. AS 2: Preparing a Program
- V. Posttest and Key

Unit V - Internal Services
Lesson 5 - Reprographics

INFORMATION SHEET

I. Terms and Definitions (AS 1)

- A. **Master Copy**--the original document from which copies are made.
- B. **Copy Machine**--commonly called "photocopiers", these machines make quick, high-quality copies directly from the original (no master is needed).
- C. **Fiber-optics**--a copier technology which provides more reliable service, makes smaller copiers possible, and operates at lower cost than the old lens-and-mirror method of photocopying.
- D. **Electronic Intelligent Copier/Printer**--a high-speed, high-quality copier/printer which combines features of copiers, computers, and word-processing equipment. Often no typewritten master is needed as these printers can produce copy from magnetic tape or other computer forms.
- E. **Laser-beam printer**--a high-quality, high-speed printer which can connect with other systems over telephone lines.
- F. **High-speed Printers**--printers which produce typewritten originals through an automatic process. In order to reach high speeds, these machines use daisy wheels or ink-jet technology.
- G. **Collator**--a special device, sometimes attached to a copier, which helps to assemble pages in order.
- H. **Thermographic Copier**--produces copies using a heat sensitive paper (used for making overhead transparencies).
- I. **Reprographics**--a term that refers to procedures and machines used for making copies.
- J. **Clip Art**--pictures and graphics which can be cut and affixed to a master copy before it is reproduced.
- K. **Auditron**--a device that automatically counts copies that are made.
- L. **Toner**--a black powder or liquid substance which comes in contact with the drum of a copy machine to produce images that are transferred to paper.
- M. **Document**--the original paper from which copies are made.
- N. **Enlargement**--a feature on some copy machines which magnifies the copy.

- O. **Reduction**--a feature on some copy machines which makes the copy smaller.

II. Reprographics

Reprographics is a term that refers to the procedures and machines used for making copies. It is a constantly changing technology since manufacturers of copy machines frequently introduce new equipment. Because the area of reprographics is growing so rapidly, it represents an area of expanding career opportunities. The most frequently used machine for reproducing materials is the copier.

III. Copiers - Photo

Operation of copiers is simple. Many copiers use plain paper so that copies can be produced on a variety of forms, even company letterhead. Some copiers feature color reproduction, enlargement or reduction of copies, collation of multi-page reports, high-quality photo reproduction, etc.

Controlled access to the copiers may be necessary to prevent excessive or personal use. An auditron can be used to automatically count copies made. Copyright laws prohibit some types of copies, therefore, you should be aware of legal restrictions.

Pointers for typing originals for copying:

1. Be sure type is clean and sharp.
2. Use liquid correction fluid to cover small errors and smudges.
3. Self-adhesive correction tape is available for blocking out errors. Liquid correction fluid can also be used to retouch any shadow lines if necessary.

Although copiers have provided a convenience to office workers, careful consideration should be given to the cost factor incurred by the employer.

The overall cost of making copies should be determined by figuring the following expenditures: paper on which the copies are printed, cost and maintenance of the equipment, labor for preparing the master, and the time spent for running the machine. The cost per copy is ascertained by dividing the total cost by the number of copies made.

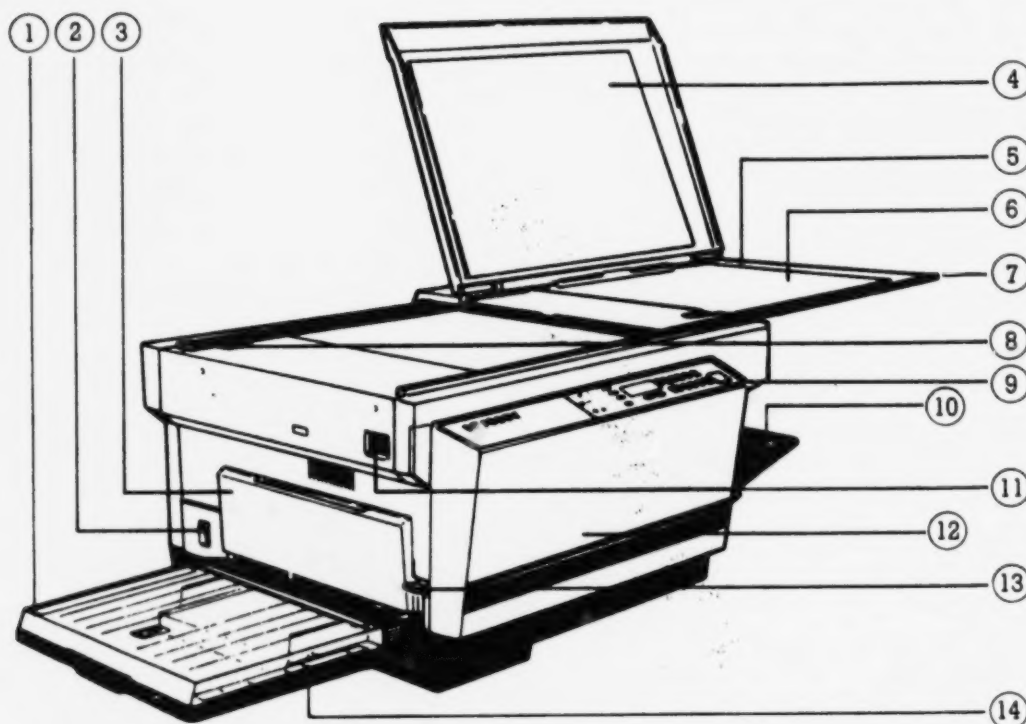
When a large volume of copies is needed, it might be advantageous to use a commercial printer or an in-house print shop.

IV. Thermographic Machines

Thermographic machines make copies of an original document by using a heat sensitive paper and an infrared light. This machine is used primarily to make transparencies. The original typewritten material and clear plastic sheet are inserted into the machine together to make the transparency which can be shown on an overhead projector.

While the thermographic machine is an excellent machine for producing transparencies, it does have certain disadvantages. For instance, only copies containing carbon, such as pencil markings, produce well; the copies are of a lower quality than the copies produced on high speed copy machines; and the proper heat setting is difficult to determine.

Convenience Copier



- 1 Paper Tray
- 2 Drum Dry Switch
- 3 Manual Feed Table
- 4 Original Cover
- 5 Original Scale
- 6 Original Glass
- 7 Moveable Top

- 8 Total Copy Counter
- 9 Control Panel
- 10 Copy Tray
- 11 ON/OFF Switch
- 12 Front Door Panel
- 13 Paper Set Lever
- 14 Paper Size Scale

Unit V - Internal Services
Lesson 5 - Reprographics

ASSIGNMENT SHEET 1: Preparing a Master for a Copier

Directions: For this assignment, prepare an original to be copied on a copier. Paper, typewriter, liquid correction fluid, and possibly invisible tape will be needed. Work neatly and be sure to proofread your work.

Prepare a promotional piece for a major upcoming school event. These 8 1/2" x 11" announcements should be suitable for distribution and for posting on bulletin boards. Be sure to include at least two pieces of clip art on the announcement.

1. Decide what information should be included: name of event, dates, times, location, participants, sponsors, admission fees, and clip art.
2. Decide what "attention-getter" to include. Are there logos, slogans, mascot emblems, etc., that would increase interest and make your promotional piece more attractive? Check with your instructor to be sure artwork and slogans are appropriate.
3. Plan the layout design of your promotional piece. Where should the most important information appear? Where should the date and time appear? Should they be centered?
4. Prepare the announcement. Be sure to proofread and correct all errors.
5. If possible, make 5 copies of the promotional piece. Perhaps the sponsor of the upcoming event would like to post the announcements on a school bulletin board.

NOTE: If available, graphic software may be used to prepare original.



Possible Clip Art

Unit V - Internal Services
Lesson 5 - Reprographics

ASSIGNMENT SHEET 2: Preparing a Program

Directions: Prepare a three-page program (cover sheet, event listings, floor plan) for the FBLA district competitive events to be held at your school the second Saturday in March, beginning at 8 a.m. Assign the time and room number for each event. Be sure to include either an FBLA logo or emblem on the program. Also, include a floor plan of your school showing the rooms where events will be held.

TEAM EVENTS

Parliamentary Procedure
Business Graphics
Entrepreneurship II

INDIVIDUAL EVENTS

Accounting I
Accounting II
Entrepreneurship I
Business English I
Business English II
Business Law
Business Mathematics I
Business Mathematics II
Clerk-Typist I
Clerk-Typist II
Data Processing Concepts
Economics
Impromptu Speaking
Job Description Manual
Job Interview
Word Processing/Machine Transcription
Mr. Future Business Leader
Ms. Future Business Leader
Office Procedures
Public Speaking
Stenographer I
Stenographer II
Business Computer Applications-
Design and Programming

CHAPTER EVENTS

Achievement in Business Advocacy
Award of Merit
Local Chapter Annual Business Report
Chartering or Reactivating Chapters
Health Service Project
Largest Chapter Membership

Local Chapter Exhibit
Money Management
Outstanding Project
National Advisory Council Leadership Awards
Outstanding Service in Local Chapter



Announcing!

WELCOME



Unit V - Internal Services
Lesson 5 - Reprographics

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheets 1 and 2

Answers will vary according to the material designed by the students.
Consider the following criteria:

1. Is all essential information included (name of event, dates, times, location, participants, sponsors, admission fees, etc.)?
2. Is there an appropriate "attention-getter"?
3. Is the layout appropriate?
4. Are there any typographical errors?
5. Is appropriate clip art included?
6. Is material aligned properly?

Unit V - Internal Services
Lesson 5 - Reprographics

POSTTEST

Directions: Prepare an invitation announcing an open house in honor of the vocational business education teacher who has been selected as "Teacher of the Year." Be sure to include the date, time, and place. Use appropriate clip art in designing the invitation.

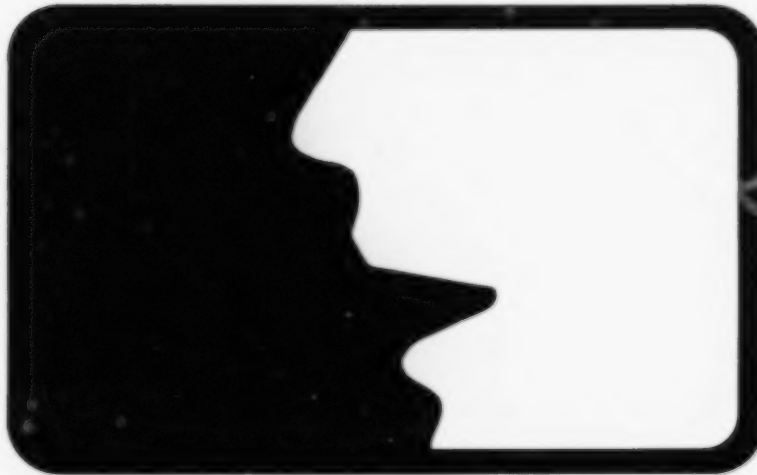
NOTE: If available, graphics software may be used to prepare original copy.

Unit V - Internal Services
Lesson 5 - Reprographics

POSTTEST KEY

Answers will vary according to the material designed by the students.
Consider the following criteria:

1. Is all essential information included?
2. Is the layout appropriate?
3. Are there any typographical errors?
4. Is at least one piece of appropriate clip art included?
5. Is material aligned properly?



Using Oral Communication Skills

Unit VI - Oral Communication Skills

UNIT OBJECTIVES

After completing this unit, the student should recognize the importance of effective listening and speaking, and should demonstrate the ability to properly handle incoming telephone calls, place telephone calls, and deal with office visitors.

LESSON OBJECTIVES

1. Given a list of 10 terms and definitions related to oral communication skills, the student will match the terms and definitions with 90 percent accuracy within 5 minutes.
2. Given a list of 9 terms related to telephone services, the student will define the terms with 85 percent accuracy within 5 minutes.
3. Upon completion of the unit, the student will list 3 results of poor listening with 100 percent accuracy within 4 minutes.
4. After completion of the unit, the student will describe at least 4 ways to overcome barriers to effective listening with 75 percent accuracy within 4 minutes.
5. After completion of the unit, the student will list 4 positive results of following directions with 100 percent accuracy within 4 minutes.
6. Given a telephone directory and a list of services to obtain, the student will locate and list, with 90 percent accuracy within 15 minutes, the telephone numbers of 11 businesses or agencies that provide services in his/her community.
7. Given a telephone directory, the student will locate and list the area code for each of 10 selected cities with 90 percent accuracy within 5 minutes.
8. Given a hypothetical situation, the student will demonstrate the ability to take an order over the telephone with 90 percent accuracy according to the Telephone Technique Checklist.
9. Given a message form and sample telephone calls, the student will prepare a telephone message form for each of the calls with 90 percent accuracy within 5 minutes.
10. Given the dates and location of an out-of-town meeting, the student will use the telephone to role play making room and plane reservations for his/her employer with 90 percent accuracy according to the Telephone Technique Checklist.

11. Given the necessary information, the student will explain how to direct a visitor to the appropriate office or area with 90 percent accuracy within 10 minutes.
12. Given a case problem, the student will describe with 90 percent accuracy within 10 minutes how to deal with an irate customer.

COMPETENCIES

1. Use effective communication skills
2. Locate telephone numbers for area businesses and services
3. Locate telephone area codes
4. Make telephone calls to place orders or to obtain information
5. Take an order over the telephone
6. Take telephone messages
7. Make hotel and plane reservations
8. Direct visitors to appropriate offices
9. Describe how to deal with irate customers

NOTES TO THE INSTRUCTOR

1. Some assignments require that each student have access to a local telephone directory. If this is not possible, those activities can be completed in groups or individually at different times.
2. As an alternate activity to simulate interaction with office visitors, groups of students could be given the following situation:

A student should role play as the receptionist at Best Paper Company. Have several classmates portray visitors. Two or three should be pleasant, polite visitors and others should be talkative, angry, aggressive, nervous, etc. Afterwards, discuss the difficult situations and the best ways to handle them.
3. On Assignment Sheet 3, the instructor might want to specify which business or institution the student should use when listing telephone numbers.
4. On Assignment Sheet 4, the instructor might want to distribute copies of the Telephone Techniques Checklist for student use in preparing the assignment or for use in peer evaluation.

SUGGESTED ACTIVITIES

I. Instructor

- A. Prepare transparencies.
- B. Distribute and discuss objectives and information sheets.

- C. Instruct students to complete Assignment Sheets; evaluate.
- D. Develop other case studies and role playing situations to meet the specific needs of your class.
- E. Arrange for students to answer the school telephone during class time or study periods.
- F. Obtain a teletrainer from your local telephone company, or use mock telephones, if necessary, for practice.
- G. Consult a representative of your area telephone company to obtain brochures, booklets, etc.
- H. Give posttest and evaluate.

II. Student

- A. Read and discuss objective and information sheets.
- B. Complete Assignment Sheets.
- C. Take posttest.

INSTRUCTIONAL MATERIALS

I. Included in this unit

- A. Objective Sheet
- B. Information Sheets
- C. Handout
 - 1. HO 1: Telephone Message Forms
- D. Transparency Masters
 - 1. TM 1: Keys to Better Listening
 - 2. TM 2: Six-button Telephone
 - 3. TM 3: Telephone Message Form
- E. Assignment Sheets and Answers
 - 1. AS 1: Learn to Listen, Listen to Learn
 - 2. AS 2: Following Directions
 - 3. AS 3: Using the Telephone Directory
 - 4. AS 4: Proper Telephone Usage
 - 5. AS 5: Dealing with Office Visitors
 - 6. AS 6: Taking a Telephone Message
- F. Posttest and Key

II. References

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Unit VI - Oral Communication Skills

INFORMATION SHEET

I. Terms and Definitions

A. Related to oral communication skills

1. **Communication**--the exchange of ideas, opinions, or information by speech or signs. The key word here is exchange. The correct message must be sent and received in order for communication to take place.
2. **Empathy**--understanding and appreciating the feelings or ideas of another person; "putting yourself in their shoes"
3. **Enunciation**--speaking words clearly and distinctly
4. **Nonverbal**--communication using gestures, silence, facial expression, tone of voice, body positioning, etc.
5. **Pitch**--highness or lowness of the voice
6. **Pronunciation**--correctly forming and voicing the sounds of words
7. **Tact**--the ability to do or say the right thing at the right time (Note: Although this sounds simple, tact is a difficult skill to develop, and improvement usually comes with experience and a concentrated effort.)
8. **Tempo**--rate or speed of speech
9. **Verbal**--communications using spoken words
10. **Volume**--loudness of the voice

B. Related to telephone services

1. **Area Code**--a three-digit number which accesses a specific geographic area
2. **Centrex**--an in-house phone system which directs incoming calls to the correct extension without going through a switchboard
3. **Classifications**--Yellow Pages headings which identify the types of firms listed under that heading, such as motels, physicians, printers, etc.
4. **Cross References**--titles which show other places where a listing may be found

5. **Direct Distance Dialing (DDD)**--station-to-station calls made without operator assistance
6. **Indented Listings**--other telephone numbers by which a party may be reached; printed under the regular listing
7. **Telephone Personality**--the image projected by a person over the telephone; based on what is said and how it is said
8. **Trademark Headings**--titles which list telephone numbers for dealers and firms by the brand name with which they are associated
9. **Wide Area Telephone Service (WATS)** (outward)--telephone network offering reduced charges for outgoing long distance calls; allows caller to direct dial station-to-station without operator assistance; in some offices, identification numbers must be dialed as a prefix to telephone number

II. The Importance of Being a Good Listener

- A. Listening is an art, one which is worth the effort it takes to develop. Listening problems at work cause unnecessary stress and waste time and money. If safety precautions are the subject of the message, the ability to listen can be a matter of life or death.
- B. Ask these questions about yourself and your listening skills.
 1. Do people have difficulty getting your attention?
 2. Do you find yourself thinking about something else while someone is talking?
 3. Do people have to repeat information for you?
 4. Do you find yourself confused when you start to do a job for which you were given oral instructions?
- C. If you answered "yes" to any of these questions, you should improve your listening skills.

III. Barriers to Good Listening

- A. Many factors affect our ability to listen. We may automatically "tune out" some speakers because of:
 1. Irritation with voice, mannerisms, etc.
 2. Age differences
 3. Ethnic implications

4. Sexual overtones
 5. Lack of interest or concern
- B. Overcoming these barriers - steps to better listening (TM 1)
1. Learn to recognize how important real, positive listening is to you and your job. You can't get ahead without it!
 2. Relax. It's hard to concentrate when you're tense.
 3. Listen to the complete message. Don't anticipate the next words; don't assume you "know" what the speaker will say next.
 4. When you're impatient to get something off your chest, count to ten--then listen some more.
 5. Don't doodle or let your mind wander.
 6. Judge the message, not the speaker. Judge the value of what you've heard after you've heard it.
 7. Don't just listen to what the speaker says. Listen to what she/he means. Silence is a "loud" form of communication. Body language often offers clues. For example, if your boss says of a report, "This will do," but is grinning from ear to ear, you can be sure that you've done an outstanding job.

IV. Following Directions

- A. Importance
1. Prevents mistakes
 2. Makes the job easier
 3. Makes work flow smoothly
 4. Reduces time spent relearning
- B. Suggestions for improvements
1. Concentrate
 2. Write the directions on paper. It's easy to say you understand something, then find two days later that you've forgotten some of the directions.
 3. Ask questions immediately if you don't understand something.

V. Sending Good Messages

- A. Adjust the message to the receiver. (Think of your audience.)
- B. If you sense that you've lost your listener's attention, adjust and start over.
- C. Use vocabulary which your receiver is sure to understand. An engineer's technical jargon, for example, would be lost on a group of junior high school students.
- D. Look for feedback (verbal or nonverbal) so you can be certain your message is coming across.
- E. If you sense a roadblock or barrier, such as irritation, disinterest, etc., try a new approach or wait until a better time to bring up the subject.

VI. Using the Telephone Directory

- A. The introductory pages contain instructions, information on telephone services, area code listings, and emergency telephone numbers.
- B. The alphabetical directory (white pages) lists the telephone numbers and addresses of individuals and firms.
 - 1. Some business people have their home telephones as indented listings under their names.
 - 2. Names which are spelled in several ways are often cross-referenced. (Example: Dailey - See also Daley, Daly.)
- C. The Yellow Pages provide quick information on products and services.
 - 1. Names, addresses, and telephone numbers of businesses are listed alphabetically under the product or service name.
 - 2. Many businesses buy extra space in the Yellow Pages for advertising and additional information.
 - 3. Products which are nationally recognized, such as automobiles and computers, may be listed by dealer name under the company trademark.
- D. Some companies have their own telephone directories which include department and employee telephone numbers and titles and specific information on using the company telephone system.
- E. Most secretaries and/or employers keep a personal directory of frequently-called numbers. This directory may be on a rotary file or in booklet form.

VII. Putting the Telephone to Work

A. Present a pleasing telephone personality. The image you project over the telephone is often the caller's first impression of your employer. Make it a good one.

1. Speak directly into the mouthpiece. Enunciate each word.
2. Be genuinely interested in the caller. A smile on your face is transmitted by your voice.
3. Speak in a normal tone of voice and at a comfortable rate. Use correct grammar; avoid slang and lazy speech, such as "Hi" instead of "Hello," "gonna" for "going to," etc.
4. Always identify yourself and the purpose of your call.
5. Close the conversation with a "Thank you," "Glad I could help," or other courteous remark.

B. Receiving calls (TM 2)

1. Most offices are equipped with push button (key) desk telephones, which usually have two to six lighted buttons (keys) below the dialing mechanism. The number of keys depends on the number of lines available to that telephone. The first key on the left is usually the hold button. If the office has an intercom or signal system, the last key is usually for the interoffice line.

a. To answer a call:

- 1) Determine the line to be answered by signal light or ring.
- 2) Push the key for that line, pick up the receiver, and talk.

b. To hold a call:

- 1) Politely ask the caller to hold the line.
- 2) Push the hold key for a couple of seconds; the key for the line on hold and the hold key will be lighted and in the normal position.
- 3) Answer or place another call on another line or the intercom. (The person on hold cannot hear you.)
- 4) Return to the original call by depressing the key for that line. Don't forget to return to the caller as quickly as possible.

2. There may be times when you answer the telephone, then need to transfer the call to another party:

- a. When the caller has reached the wrong extension
- b. When the caller's request can best be handled by another person
- c. At the request of the caller

Note: Before transferring a call, be sure that the person to whom you transfer the call can provide the requested information. Offer to get the information yourself and return the call. Most callers appreciate a helpful attitude, and resent being given "the run around."

- d. To transfer a call:
 - 1) Determine to whom you should transfer the call, and the correct extension.
 - 2) Tell the caller the name and extension number to which you are transferring the call.
 - 3) Follow the instructions for call transfer on the particular telephone you are using.

C. Correct procedure for handling business calls

1. Answer promptly, preferably before the third ring. If you will be away from your desk, arrange to have someone answer the telephone.
2. Identify your company or department and yourself.
3. Take necessary action.

- a. Notify recipient of the call, either in person or by signal (buzzer or intercom).

Example: "Just a moment, please. I'll tell Ms. Martin you are on the line," then, "Ms. Martin, John Jones is on line 2."

- b. Ask the caller to wait, if necessary.

Example: "Mr. Adams is on another line right now. May I help you?" or "I'm sorry, Mr. Smith is unable to talk just now. Do you wish to wait or may he call you?"

c. Offer to be of help.

Example: "Mrs. Thompson is out of the office until Thursday. May I help you?" or "Mr. Moore is expected back at 2 o'clock. May I ask him to call?" or "Mr. Clark is on vacation. His assistant, Mr. Christensen, is here. Would you like to talk with him?"

d. Take a message. (TM 3, HO 1)

Example: "I'm sorry, Mr. Harris is out of the office today. May I take a message?"

- 1) Have necessary materials at hand: pad, pencil, calendar.
- 2) Make notes as information is being given.
- 3) Write legibly.
- 4) Ask politely to have information repeated if necessary.
- 5) Verify information to be sure you have correct spelling, telephone numbers, dates, figures, etc.

NOTE: Encourage those for whom you answer the telephone to keep you informed of their whereabouts and how they can be reached for messages.

e. Interrupting and reestablishing the call

- 1) Offer choice of waiting or being called back.

Example: "I have the information in the file. Would you care to wait while I get it?"

- 2) Depress HOLD BUTTON during interruption if the telephone is equipped with one.
- 3) Return to the line every 30 or 40 seconds to keep caller informed of your progress. If you encounter difficulty, suggest that you return the call when you have the necessary information. (Nobody likes to spend valuable time "on hold.")

- 4) Attract attention when resuming call.

Example: "Mr. Walker, thank you for waiting..."

- 5) Express regret for interruption.

D. Placing business calls

1. Telephone techniques

- a. If using a key telephone, choose an available line. Depress the key, lift the receiver, and place the call.
- b. When placing a local call from a Centrex system, dial the access code for an outside line, then dial the number.
- c. When placing a long distance call, check the area code and number carefully. Determine if the call will be made by Direct Distance Dialing (DDD) or operator-assisted (person-to-person, collect, or credit card).
 - 1) For long distance directory assistance, dial 1 - area code - 555 - 1212. Give the name of the city and then the name of the party you wish to call. Record this number.

NOTE: Telephone companies are now charging a fee for long-distance directory assistance calls in excess of two per month.

- 2) Dial the number carefully. If your office has WATS, use the appropriate access numbers. Charges for station-to-station calls begin when the phone or switchboard is answered. Some WATS systems provide discounts for calls placed during off-hours such as early morning and late afternoon.

2. General guidelines

- a. Check the telephone number in the directory.
- b. If placing a call for your employer:
 - 1) After reaching the correct number, ask for the person requested by your employer.
 - 2) State your employer's name.

Example: Mrs. Ryan, please. Mr. Murray of Syntec calling.
 - 3) Have your employer on the line when the other person comes on. It is poor etiquette to expect the called party to wait.

- c. When placing your own calls, plan each call in advance.
 - 1) Make a list of information needed, including the purpose of the call, name of person to be reached, and questions to be asked.
 - 2) Have necessary materials handy, such as pad and pencil, calendar, appointment book, and documents to be discussed.
 - 3) Decide on the best time to call. Consider business hours and the time of day in other time zones.
- d. When making appointments, whether for visitors to your office or for your employer to visit others, follow the basic guidelines for planning and verifying.
 - 1) Always record date, time, place, and participants.
 - 2) Confirm appointments for visitors to your office a day or two in advance of the appointment.
- e. To make plane or room reservations by telephone:
 - 1) Have at hand the necessary information, such as destination, dates, hotel preference, and most convenient travel times.
 - 2) Airline reservations are commonly made through a travel agency. Check to see if your employer uses a particular agency. Always have the ticket agent verify the information.
 - 3) Many hotel/motel chains have toll-free numbers or reservation hot-lines which save time and long-distance telephone expense.
 - 4) When making room reservations, give the name of the traveler, dates for which a room is needed, and type of room requested. You may be asked to give a credit card number to guarantee the reservation if the traveler will be arriving late in the evening.

VIII. Dealing with Office Visitors

- A. Receiving visitors allows you to apply all the communication skills you have developed. Treat each visitor as a guest, following customs in your office situation.
 - 1. Greet the visitor cordially.
 - 2. Ask whom she/he wishes to see.
 - 3. Notify that person that his/her guest has arrived.
 - 4. Direct the visitor to the appropriate office.
- B. If an unscheduled visitor arrives, try to determine the purpose of the visit and the most appropriate person to handle the visitor's request. Then contact that person to see if she/he wishes to see the visitor.
- C. From time to time, you may have to deal with an irate visitor or customer. Try to remain calm and determine what the problem is and offer to help in whatever way you can. If the visitor remains upset or unreasonable, call your supervisor for assistance.
- D. Be prepared to answer all kinds of questions. You may be asked for directions to airports or hotels, restaurant suggestions, etc. Try to be as helpful as is reasonably possible.

TELEPHONE MESSAGETo: _____ Date: / /

Caller: _____ Time: _____

Of: _____

Phone: _____
 area code number extension☐ Telephoned ☐ Please Call Back☐ Returned Your Call ☐ Will Call BackMessage: _____

Call Taken By _____

TELEPHONE MESSAGETo: _____ Date: / /

Caller: _____ Time: _____

Of: _____

Phone: _____
 area code number extension☐ Telephoned ☐ Please Call Back☐ Returned Your Call ☐ Will Call BackMessage: _____

Call Taken By _____

TELEPHONE MESSAGETo: _____ Date: / /

Caller: _____ Time: _____

Of: _____

Phone: _____
 area code number extension☐ Telephoned ☐ Please Call Back☐ Returned Your Call ☐ Will Call BackMessage: _____

Call Taken By _____

TELEPHONE MESSAGETo: _____ Date: / /

Caller: _____ Time: _____

Of: _____

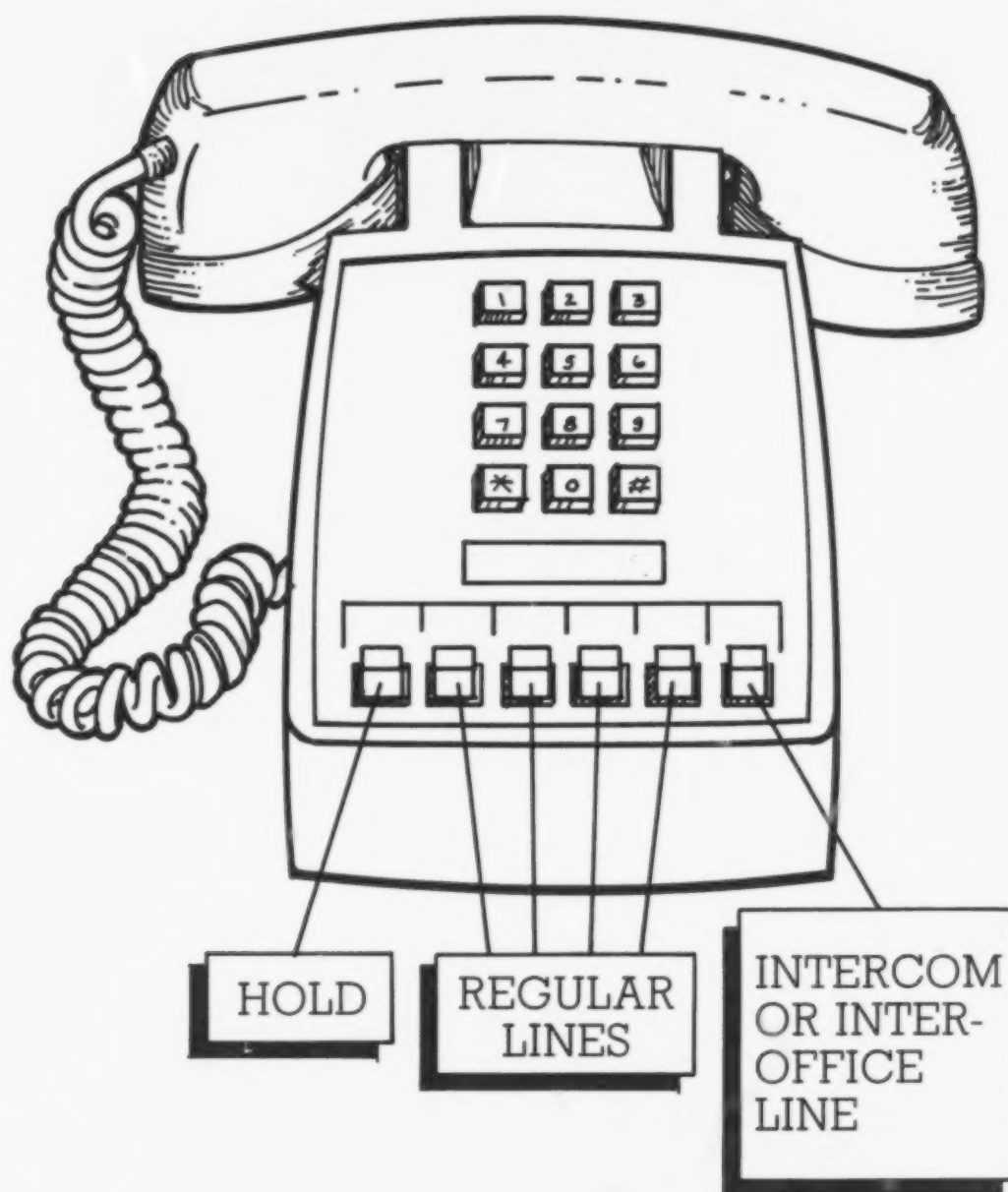
Phone: _____
 area code number extension☐ Telephoned ☐ Please Call Back☐ Returned Your Call ☐ Will Call BackMessage: _____

Call Taken By _____

Keys to Better Listening

1. Look at the speaker.
2. Relax.
3. Judge the message, not the speaker.
4. Listen to the whole message before acting or reacting.
5. Watch the speaker for unspoken meanings.

Six-button Telephone



TELEPHONE MESSAGE

To: _____ Date: ____ / ____ / ____

Caller: _____ Time: _____

Of: _____

Phone: _____
 area code number extension

- | | |
|---|---|
| ☐ Telephoned | ☐ Please Call Back |
| ☐ Returned Your Call | ☐ Will Call Back |

Message: _____

Call Taken By _____

Unit VI - Oral Communication Skills

ASSIGNMENT SHEET 1: Learn to Listen, Listen to Learn

Directions: Your instructor will give you two word problems to answer. Write your answers in the spaces below. Then individually or as a class, answer the discussion questions.

1. _____

2. _____

Discussion Questions:

1. Were you expecting different questions at the end of each problem?

2. If so, how did these expectations influence your listening?

3. What conclusions can you draw about listening with a closed mind or preconceived ideas?

Unit VI - Oral Communication Skills

ASSIGNMENT SHEET 1: Learn to Listen, Listen to Learn

FOR INSTRUCTORS ONLY

Directions: When introducing the concept of effective listening, read the following problems to the students. After they give their responses, discuss the listening techniques used by those who gave the correct responses. Then discuss the barriers to communication that caused some students to miss the point.

PROBLEM 1:

You are a high school student who will graduate in 1991. According to your district's requirements you will need 4 credits of English/Literature, 3 credits of social studies, 2 credits of math, 2 credits of science, and 1 credit each of physical education, practical arts, and fine arts. In addition, your district requires a minimum of 8 elective credits. You can earn 6 credits each year for 4 years. According to this problem, when will you graduate?

PROBLEM 2:

Your mother's sister has red hair. All three of her children have red hair, but only her son has brown eyes. Your mother's brother also has red hair, but only one of his sons has red hair and brown eyes. Your father has curly hair and your only sister has red, curly hair. Your mother has three children, two of whom have red hair and brown eyes. How many daughters does your mother's sister have?

Unit VI - Oral Communication Skills

ASSIGNMENT SHEET 2: Following Directions

How well do you follow directions? On this exercise, follow directions closely; do not ask questions. Read the entire exercise before you begin. Your teacher will time you; so when you are finished, take your papers to the teacher.

1. Take out four clean sheets of typing paper.
 2. On the first sheet, set margins for a 60-space line; then center your full name on Line 15.
 3. Double space, and center the name of your school in all caps.
 4. Triple space; type the alphabet.
 5. Beginning on Line 25, center the names of six of your friends or relatives; type one name on each line, double spacing between names.
 6. On Line 40, type today's date at the left margin. Double space.
 7. Set margins for a 50-space line. Type the name of your favorite color.
 8. Remove the first sheet of paper.
 9. Fold the next sheet of paper in half as illustrated in the diagram: Unfold and insert into your typewriter.
-
10. Clear all tabs; set a new tab at the center point. All lines on this sheet should begin at the center point. Type your name on Line 12.
 11. Space down one inch. Type the name of your favorite food.
 12. Remove that sheet of paper; insert the next sheet.
 13. On Line 10, tab to center, backspace 10 spaces; type the name of the most recent movie or television show you viewed.
 14. Set margins for a 70-space line. On Line 15, rate the movie or show by typing "Excellent," "Good," "Fair," or "Poor."
 15. Remove that sheet of paper. Insert the next sheet of paper.
 16. On Line 20, tab to center; space forward 10 times. Type your name. Remove this sheet of paper; fold it lengthwise so that your name appears on the outside.

17. Put other sheets in order with the first page on top. Fold lengthwise and place inside the last sheet.
18. Disregard the instructions given in Number 5, 9, and 14.
19. With a pencil, place a checkmark by the items you typed in Directions 4, 13, and 16.
20. Turn in your paper by placing it in the center of your teacher's desk.

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Unit VI - Oral Communication Skills

ASSIGNMENT SHEET 3: Using the Telephone Directory

Directions: For this assignment, you will need a local telephone directory with both white and yellow pages.

1. List the name and telephone number of one business found under each of the classifications below.
 - a. Architects
 - b. Automobile Parts and Supplies
 - c. Office Supplies
 - d. Painting Contractors
 - e. Optometrists
 - f. Restaurants
2. List the telephone numbers for each of the following located in your community.
 - a. A hospital or clinic
 - b. A high school
 - c. Public Works Department
 - d. Post Office
 - e. IRS Office (Use nearest location if not in local community)
3. Locate and list the area code for each of these cities:
 - a. Pasadena, California
 - b. Davenport, Iowa
 - c. New Orleans, Louisiana
 - d. St. Paul, Minnesota
 - e. Lincoln, Nebraska
 - f. Ithaca, New York
 - g. Cincinnati, Ohio

- h. Houston, Texas
- i. Vancouver, Washington
- j. Madison, Wisconsin

Unit VI - Oral Communication Skills

ASSIGNMENT SHEET 4: Proper Telephone Usage

Directions: Role play the following situations demonstrating proper procedures and telephone usage. Your instructor will evaluate you according to the following criteria as listed on the Telephone Techniques Checklist: Voice (clear, moderate volume, low-pitch, inflection), speech (enunciation, moderate rate, pronunciation), and information (well organized, correct, grammatical).

1. a. As the caller:

You are a word processing operator at JOTS Graphics, Inc. You discover that you have only two blank diskettes left, and will not be able to wait for the next shipment to arrive. Your supervisor asks you to call a local computer supply store to determine the availability and price for diskettes. You want to buy twelve, and will pick them up in the morning. Use the Yellow Pages to find the name and telephone number of suppliers in your area, under the heading Computers-Supplies & Parts. If your Yellow Pages do not include this heading, use this information:

Computers-Supplies & Parts

Software, Inc.....824-8108

b. As the receiver of the call:

Assume that you answer the telephones and take sales orders for Software, Inc. When you receive the call from JOTS, verify the request, determine the price for the diskettes, and confirm that twelve diskettes will be available for pickup.

2. Your boss needs plane and room reservations for a conference in Little Rock, Arkansas, on Thursday. The conference will end Friday at 12 noon. Plan and place the necessary calls to make the reservations.

Unit VI - Oral Communication Skills

ASSIGNMENT SHEET 5: Dealing with Office Visitors

Directions: Assume that you are the receptionist for a group of accountants. Your classroom is the reception area. The school's main office is the office of Terry Brightwell, CPA. A client enters the office, hands you a business card, and states that he has an appointment with Ms. Brightwell.

Describe each action you would take to notify Ms. Brightwell and direct the visitor to Ms. Brightwell's office.

Unit VI - Oral Communication Skills

ASSIGNMENT SHEET 6: Taking a Telephone Message

Directions: Using the following information, complete the telephone message sheet.

At 3:15 p.m. the telephone rings

Secretary: Mrs. Langford's Office, (your name) speaking

Caller: This is John Lee at Lee and Associates, May I speak to Mrs. Langford please.

Secretary: I'm sorry, Mrs. Langford is out of the office until 4 o'clock this afternoon. May I help you?

Caller: Would you please give Mrs. Langford this message. I have changed our airline reservation to TWA flight #913 which leaves Kansas City at 12:15 p.m. tomorrow and arrives in San Francisco at 4:36 p.m. Did you get all the information?

Secretary: Yes Mr. Lee, I'll give Mrs. Langford the message when she returns.

Caller: If Mrs. Langford needs to call me she can reach me at my home telephone 816-123-4567.

Secretary: OK Mr. Lee, thank you for calling.

Caller: Goodbye

TELEPHONE MESSAGE

To: _____ Date: / /

Caller: _____ Time: _____

Of: _____

Phone: _____
 area code number extension

☐ Telephoned ☐ Please Call Back
☐ Returned Your Call ☐ Will Call Back

Message: _____

Call Taken By _____

Unit VI - Oral Communication Skills

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet 1:

1. Problem 1: 1991, as stated in the first sentence
2. Problem 2: 2; she has 3 children, one of which is a son.

Assignment Sheet 2:

All sheets should be in order, folded lengthwise, and placed in the center of the teacher's desk.

Sheet 1: Name centered on Line 15
Name of school centered in all caps on Line 17
Alphabet at left margin (60-space line) and checkmarked on Line 20
Current date at left margin (60-space line) on Line 40
Favorite color at left margin (50-space line) Line 42

Sheet 2: This sheet should NOT have been folded horizontally.
Name should begin at center on Line 12.
Name of favorite food should begin at center on Line 18.

Sheet 3: Name of movie or television show 10 spaces to left of center on Line 10, checkmarked

Sheet 4: This sheet should be folded. On the outside of the front, the student's name should be typed on Line 20 and checkmarked.

Assignment Sheet 3:

Answers will vary

Assignment Sheet 4:

Answers will vary (See Telephone Techniques Checklist).

Assignment Sheet 5:

1. Greet the visitor cordially.
2. Notify Ms. Brightwell that the guest has arrived.
3. Direct the visitor to Ms. Brightwell's office.

Assignment Sheet 6:

TELEPHONE MESSAGE

To: Mr. Longford Date: current

Caller: Mr. John Lee Time: 3:15

Of: Lee & Associates

Phone: (916) 123-4567 (home)
area code number extension

- ☒ Telephoned ☐ Please Call Back
☐ Returned Your Call ☐ Will Call Back

Message: Flight reservations
changed. Leave K.C.

at 12:15 p.m. tomorrow aboard

Flight 913. Arrive San Francisco

4:36 p.m. If questions, please call.

Call Taken By (secretary's initials)

Telephone Techniques Checklist

<u>Voice</u>	<u>Possible Points</u>	<u>Student's Score</u>
Clear	10	_____
Moderate volume	10	_____
Low pitch	5	_____
Inflection	5	_____
<u>Speech</u>		
Enunciation	10	_____
Moderate rate	10	_____
Pronunciation	10	_____
<u>Information</u>		
Well organized	10	_____
Correct message	20	_____
Grammatically correct	<u>10</u>	_____
	100	

Unit VI - Oral Communication Skills

POSTTEST

1. Match the terms on the left with the correct definition on the right by placing the number of the definition in the blank beside each term.

_____	a. communication	1. Rate or speed of speech
_____	b. empathy	2. Communications using gestures, silence, facial expression, tone of voice, body positioning, etc.
_____	c. enunciation	3. Understanding and appreciating the feeling or ideas of another person
_____	d. nonverbal	4. Exchange of ideas, opinions, or information
_____	e. pitch	5. Loudness of the voice
_____	f. pronunciation	6. Highness or lowness of the voice
_____	g. tact	7. Communications using spoken words
_____	h. tempo	8. The ability to do or say the right thing at the right time
_____	i. verbal	9. Correctly forming and voicing the sounds of words
_____	j. volume	10. Speaking words clearly and distinctly

2. Define these terms related to telephone services.

a. Area Code

b. Centrex

c. Classifications

- d. Cross-References
 - e. Direct Distance Dialing
 - f. Indented Listings
 - g. Telephone Personality
 - h. Trademark Headings
 - i. Wide Area Telephone Service (WATS)
3. List at least three results of poor listening habits at work.
- a.
 - b.
 - c.
4. Describe three ways to overcome barriers to effective listening.
- a.
 - b.
 - c.
5. List four positive results of following directions.
- a.
 - b.
 - c.
 - d.

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6. Assume you are employed at Ozark Hills Tours, Inc., in Branson, Missouri. You are the secretary for Lee Worthy, Director of the Tours Department. Using the following information, complete a telephone message form for each of these calls received while Mr. Worthy was out of the office today.

a. 9:00 a.m.

Secretary: Mr. Worthy's office, (Your name) speaking.

Caller: This is Maggie Graham from Sunrise House.
May I speak to Mr. Worthy, please?

Secretary: I'm sorry, Ms. Graham, but Mr. Worthy is out of
the office right now. May I take a message?

Caller: Yes, I'm calling about an Ozark Tour planned for
July. Would you have Mr. Worthy call me after
3:30 p.m. at 464-2812?

Secretary: I will give Mr. Worthy your message. Thank you
for calling.

Caller: Goodbye.

Secretary: Goodbye.

b. 10:30 a.m.

Secretary: Mr. Worthy's office, (Your name) speaking.

Caller: This is Pat Stone, Mr. Allen's secretary. Mr.
Allen won't be able to keep the luncheon
appointment with Mr. Worthy today, but would
like to meet with him at 3:00 p.m. today if his
schedule permits.

Secretary: Let me check his appointment schedule. Yes, He
will be able to see Mr. Allen at 3:00 p.m.
today.

Caller: Thank you. Goodbye.

Secretary: Goodbye.

TELEPHONE MESSAGE

To: _____ Date: / /

Caller: _____ Time: _____

Of: _____

Phone: _____
 area code number extension

- ☐ Telephoned ☐ Please Call Back
☐ Returned Your Call ☐ Will Call Back

Message: _____

Call Taken By _____

TELEPHONE MESSAGE

To: _____ Date: / /

Caller: _____ Time: _____

Of: _____

Phone: _____
 area code number extension

- ☐ Telephoned ☐ Please Call Back
☐ Returned Your Call ☐ Will Call Back

Message: _____

Call Taken By _____

7. Describe the best way to handle this situation involving an irate customer.

You are a cashier on the first floor of Hoover Hospital. Today is Monday. It has been a very hectic day with questions and problems of all kinds.

A patient has just arrived at your window. Her initial question is, "Is this where I pay for my prescription drugs?"

After telling her there is a pharmacy on the second floor that dispenses and accepts payment for prescription drugs, she says, "I don't believe this! I was just there! A man up there sent me here. Don't any of you people know what's going on, or care?"

Unit VI - Oral Communication Skills

POSTTEST KEY

1.

a.	4	f.	9
b.	3	g.	8
c.	10	h.	1
d.	2	i.	7
e.	6	j.	5
2.
 - a. **Area Code**--a three-digit number which accesses a specific geographic area
 - b. **Centrex**--an in-house telephone system which directs incoming calls to the correct extension without going through a switchboard
 - c. **Classifications**--Yellow Pages headings which identify the types of firms listed under that heading, such as motels, physicians, printers, etc.
 - d. **Cross References**--titles which show other places where a listing may be found
 - e. **Direct Distance Dialing (DDD)**--station-to-station calls made without operator assistance
 - f. **Indented Listings**--other telephone numbers by which a party may be reached; printed under the regular listing
 - g. **Telephone Personality**--the image projected by a person over the telephone; based on what is said and how it is said
 - h. **Trademark Headings**--titles which list telephone numbers for dealers and firms by the brand name with which they are associated
 - i. **Wide Area Telephone Service (WATS)** (outward)--telephone network offering reduced charges for outgoing long distance calls; allows caller to direct dial station-to-station without operator assistance; in some offices, identification numbers must be dialed as a prefix to telephone number
3. Answers should include three of the following:
 - a. Waste of time
 - b. Waste of money
 - c. Possible accidents
 - d. Unnecessary stress

4. Any three of the following:

- a. Learn to recognize the importance of real positive listening.
- b. Relax.
- c. Be patient.
- d. Don't doodle or let your mind wander.
- e. Judge the message, not the speaker.
- f. Watch the speaker for other clues to his/her real meaning.

- 5.
- a. Prevents mistakes
 - b. Makes the job easier
 - c. Makes work flow more smoothly
 - d. Reduces time spent relearning

6.

TELEPHONE MESSAGE

To: Mr. Worthy ^(current) Date: 1/1
Caller: Maggie Graham Time: 9:00 a.m.
Of: Sunrise House
Phone: 464 - 2812
area code number extension

☒ Telephoned ☒ Please Call Back
☐ Returned Your Call ☐ Will Call Back

Message: Please call after 3:30
regarding an Ozark Tour for
July.

Call Taken By (Student's Name)

TELEPHONE MESSAGE

To: Mr. Worthy ^(current) Date: 1/1
Caller: Pat Stone Time: 10:30 a.m.
Of: Mr. Allen's Secretary
Phone: _____
area code number extension

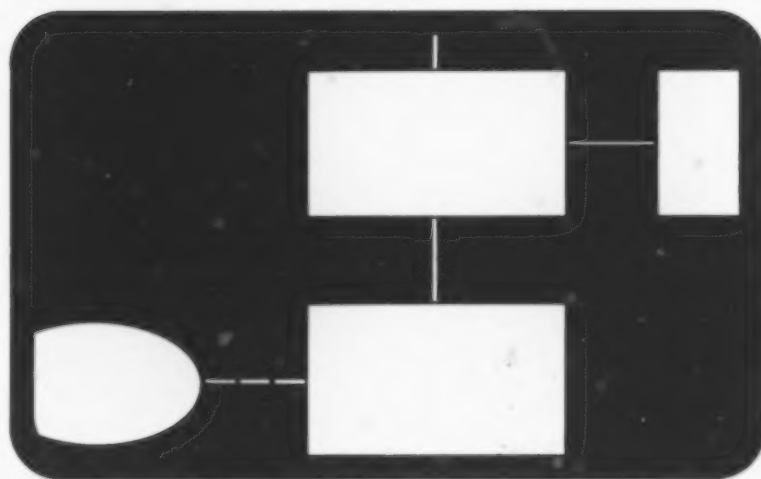
☒ Telephoned ☐ Please Call Back
☐ Returned Your Call ☐ Will Call Back

Message: Mr. Allen can't come to lunch
but he will meet with you
at 3:00 today.

Call Taken By (Student's Name)

7. Answers will vary, but should include:

- a. Remain calm.
- b. Determine problem.
- c. Offer to help customer in any way you can, such as calling pharmacy on second floor to see if they can help, or escort visitor to pharmacy, if possible.
- d. Apologize to visitor for inconvenience. Make it obvious that you are concerned.



Using Office Procedures and Organization Skills

Unit VII - Office Procedures and Organization

UNIT OBJECTIVES

Upon completion of this unit, the student will have a knowledge about quality, cost, organization, and maintenance of office supplies and equipment; be able to clean and organize a desk top, desk files, and a storage cabinet; and have a knowledge of basic office structures, formal organization of the office, and job descriptions.

LESSON OBJECTIVES

1. Given 30 questions concerning uses of various grades of ribbons, stationery, and carbon paper, the student will complete the assignment with 90 percent accuracy within 20 minutes.
2. Given a secretarial supplies checklist, the student will identify the supplies that a secretary would need with 90 percent accuracy within 20 minutes.
3. Given a list of office situations involving purchasing office supplies, the student will list the circumstances when a requisition should be used and when a purchase order should be utilized with 90 percent accuracy within 15 minutes.
4. Given the task of purchasing supplies for an office, the student will list the factors to be considered before ordering supplies with 90 percent accuracy within 20 minutes.
5. Given the task of stocking a supply cabinet, the student will list the procedures for maintaining an orderly supply cabinet with 90 percent accuracy within 20 minutes.
6. Given the necessary cleaning and desk supplies and a desk organization checklist, the student will clean and organize materials on his/her desk with 90 percent accuracy within 10 minutes.
7. Given a test requiring 30 answers concerning the efficient placement and use of supplies on or within the work station, the student will correctly answer the questions with 90 percent accuracy within 20 minutes.
8. Given the task of selecting office equipment, the student will list 10 factors to be considered in choosing office equipment with 90 percent accuracy within 10 minutes.
9. Given the task of preparing a maintenance file regarding equipment, the student will list 5 types of information which should be contained in a maintenance file with 80 percent accuracy within 10 minutes.

10. Given records to maintain on equipment which has been purchased, the student will list 7 factors which should be included in the records with 85 percent accuracy within 10 minutes.
11. Given information concerning an office layout, the student will contrast, with 90 percent accuracy within 30 minutes, an open and closed layout and explain how the 2 plans are often combined.
12. Given requirements regarding the purchase of a desk and chair for a secretary, the student will make the proper selection and type a requisition for the equipment with 90 percent accuracy within 20 minutes.
13. Given the options of renting, leasing, or purchasing office equipment, the student will list, with 80 percent accuracy within 15 minutes, 2 reasons for using each of the options.
14. Given a formula for determining the break-even point and information regarding the leasing and purchasing of office equipment, the student will determine, with 90 percent accuracy within 15 minutes, whether to lease or purchase equipment.
15. Given an equipment maintenance file on 6 electronic calculators, the student will determine, with 90 percent accuracy within 20 minutes, whether it is cheaper to have a maintenance contract or to pay the bill when repairs are needed.
16. Given the options of working in a public or private enterprise, the student will list an advantage and disadvantage of working for each with 100 percent accuracy within 15 minutes.
17. Given the options of working in a sole proprietorship, partnership, or corporation, the student will list an advantage and a disadvantage of each with 80 percent accuracy within 15 minutes.
18. Given the tasks of writing an employee's manual and keeping a desk manual, the student will list those items which should be contained in each with 90 percent accuracy within 20 minutes.
19. Given the titles of positions within a company, the student will draw a line and staff company structure with 90 percent accuracy within 20 minutes.
20. Given the titles of positions within a company, the student will draw an office support structure with 90 percent accuracy within 20 minutes.
21. Given information regarding job descriptions, the student will define the term "job description" and list its 3 basic sections with 90 percent accuracy within 15 minutes.

COMPETENCIES

1. Identify the uses of types and grades of office supplies
2. Select secretarial supplies
3. Decide when to use requisitions and purchase orders
4. List factors to be considered when ordering supplies
5. Stock and organize a supply cabinet
6. Clean and organize a desk
7. Organize a work station
8. List criteria for selecting office equipment
9. Prepare a maintenance file for office equipment
10. Maintain office equipment records
11. Analyze an office layout
12. Select and type a requisition for office furniture
13. Compare renting, leasing, and purchasing plans for office equipment
14. Decide whether to lease or purchase office equipment
15. Analyze whether to purchase a maintenance contract
16. Compare working for public and private enterprises
17. Contrast sole proprietorships, partnerships, and corporations
18. List items to be included in an employee's manual and a desk manual
19. Diagram line and staff company structures
20. Diagram office support structures
21. Analyze job descriptions

NOTES TO THE INSTRUCTOR

1. Several transparency masters are also used as handouts so that the student can keep a copy of material which you present on a transparency.
2. Most of the material in this unit should be supplemented with local information--supply catalogs from the area, local job descriptions, etc.
3. Secretarial Procedures for the Electronic Office by Kutie and Rhodes seems to be an excellent resource for the high school classroom.
4. Administrative Office Management by Tedesco and Mitchell is an excellent source of advanced material.

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II. Software*

*Software descriptions have been taken directly from the publishers and/or vendors

- A. Alexander, Wilma Jean, Microcomputer Applications in Vocational Education: Business, Marketing, and Management, Normal, IL: Illinois State University, 1983. For: Apple II+; Commodore PET; TRS-80 III.

This series of programs includes: critical path method, capital funding, inventory analysis, production method comparisons, income tax reduction, depreciation analysis, present future value, name and address processing, financial ratio analysis, comparative analysis, purchase of auto return on investment, expected value computations, job pricing--bidding, equipment purchase, business forecasting, breakdown analysis, and lease-buy. Available from Curriculum Publications Clearinghouse, Western Illinois University, 46 Horrabin Hall, Macomb, IL 61455.

B. Microview. For: Apple IIe; II+.

This package contains the information on careers that is provided in the MOVIEW career series provided by the Missouri Department of Elementary and Secondary Education. The career information is grouped in clusters of related occupations. After inputting information about interests, abilities, likes, etc., the student obtains a printout of occupations that match his/her criteria. Detailed information about any given occupational title can also be obtained. Available from the Missouri Department of Elementary and Secondary Education, Jefferson City, MO 65102.

C. Olinzock and Santos, Microcomputer Activities for Office Procedures, Cincinnati: South-Western Publishing Company. For: TRS-80 III and IV; Network 3; Apple II+; IIe; IIc; IBM PC.

This stand-alone software package emphasizes user application and teaches students how the microcomputer can be used to perform various office tasks. Activities include records management, sorting routines, data entry, payroll processing, processing business forms, interest calculations, inventory management, checkbook management, and customer billing. Available from South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227.

D. Words of General Office. Computer Words at Work--Clerical and Office, Alexandria, LA: MIND, 1984. For: Apple II; II+; IIe; IIc.

This is one of six programs in a series. It includes six lessons which teach the vocabulary related to clerical procedures, office communications, personnel, mail handling. Available from Southwest Tele-Computer Corporation, 5845 Gardner Highway, Alexandria, LA 71303.

Unit VII - Office Procedures and Organization
Lesson 1 - Selecting Office Supplies

LESSON OBJECTIVE

Given 30 questions concerning qualities of various grades of ribbons, stationery, and carbon paper, the student will complete the assignment with 90 percent accuracy within 20 minutes.

SUGGESTED ACTIVITIES

I. Instructor

- A. Provide objectives and information sheets for students.
- B. Obtain samples of ribbons, carbon paper/sets, and stationery from an office supply store to use as illustrations when discussing this lesson.
- C. Obtain examples of letterheads and envelopes from local businesses.
- D. Use an office supply catalog to discuss the various descriptions of products available.
- E. Assign Assignment Sheet. You may choose to instruct students to specifically identify each type of office supply.
- F. Give posttest. Although second sheets and carbon paper are discussed in this lesson, the trend in many offices today is to use carbon paper/second sheets for office copies only. Therefore, you may wish to omit discussion of these two supplies. There are two posttests--one includes carbon paper/second sheets; the other test does not.

II. Student

- A. Read and discuss objectives and information sheets.
- B. Complete Assignment Sheet.
- C. Take posttest.

INSTRUCTIONAL MATERIALS

I. Objective Sheet

II. Information Sheets

III. Assignment Sheet and Answers

A. AS 1: Availability and Cost of Office Supplies

IV. Posttests and Keys

UNIT VII - Office Procedures and Organization
Lesson 1 - Selecting Office Supplies

INFORMATION SHEET

A secretary will be able to perform his/her job more efficiently if the desk is well stocked with needed supplies. Supplies for a large company are usually ordered through the purchasing department. In some offices, the office manager chooses the stationery, ribbons, and other supplies used by the secretary. However, in other firms, the secretary has this responsibility. Whatever the case, it is important for the secretary to have some knowledge of what is available and best suited for specific kinds of work.

I. Typewriter Ribbons

- A. **Film ribbons**, sometimes called carbon ribbons, are favored by many because they produce sharp images and are practically smudgeproof. In addition, material typed with a film ribbon is preferred when photocopying. However, because film ribbons are "one-time" ribbons and cannot be reused, they are the most costly.
 - 1. **One-use film ribbon** is a continuous, narrow, coated strip that advances at the rate of one stroke per space on the ribbon. It is used once and discarded. Because it produces uniformly even type on a page, it is preferred for high-quality work.
 - 2. **Multi-use film ribbon** is similar to one-use ribbon except that the same spot can be struck from six to nine times. It is also discarded at the end of the ribbon, but has a longer life than the one-use film ribbon.
- B. **Fabric ribbons** may be purchased in various lengths, thicknesses, and with various degrees of inking and fiber content. Perhaps the most important factor, though, is to be aware that they may be either cotton (which gives the least wearing time but the most intense impression), silk, or nylon (longest wearing, sharpest impression).
- C. **Special purpose ribbons** may be purchased for a variety of uses including **opaque ribbons** for preparing original copy to be photographed, **offset ribbons** designed for typing directly on paper offset masters, and **two-color ribbons** to complement company letterhead or for special functions.

II. Office Stationery

- A. **Fiber content** refers to the amount of cotton fiber (sometimes called rag) contained in stationery.

1. The best, most durable paper is manufactured from 100 percent cotton or rag fibers. Because it is considered a permanent paper, it is widely used for wills, deeds, and legal forms.
 2. Other papers are manufactured from wood pulp (sometimes called sulphite). Ordinarily, sulphite paper is not as long-lasting or as strong as rag papers.
 3. Most offices use a combination of the two for letterhead paper. A letterhead made of at least 25 percent rag fiber is considered adequate. Forms for business records usually are made of all sulphite or high-sulphite content.
- B. Bond is a term used to refer to stationery and means that the paper has met certain requirements for high-grade paper possessing strength, long life, and durability. Bond paper may be cotton, pulp, or a combination of the two.
- C. The term watermark refers to the sketch in the weave of the paper and can be the name or trademark of the company using the paper or the brand name of the paper. The watermark indicates quality because only better bond is watermarked. The watermark identifies the right side of the paper; always have the watermark read across the sheet in the same direction as the typing.
- D. The weight or substance of paper is a number based on the weight of a ream (500 sheets) of 17- by 22-inch paper. If the ream weighs 20 pounds, the paper is said to be 20-pound weight. The label on the end of a ream of paper will usually read Sub 16, Sub 20, Sub 24, etc., indicating the weight or substance of the paper. Two thousand sheets of 8 1/2- by 11-inch paper can be cut from one 17- by 22-inch ream.
1. Regular letterhead paper and envelopes are usually of substance 16, 20, or 24.
 2. Interoffice paper and airmail stationery are usually of substance 9 through 20.
- E. The erasability of bond papers varies. Some bond papers contain a special sizing that provides a tough finish for keeping typing impressions on the surface rather than letting the ink quickly absorb into the paper. Because it takes approximately 24 hours for the ink to be absorbed into the paper, fresh typing can be quickly and easily removed, but surrounding typing can also be easily smeared and smudged. The most difficult papers on which to make neat erasures and corrections are the inexpensive all-sulphite ones.

III. Second Sheets

- A. The paper on which a carbon copy is typed should be thin, strong, and of smooth surface so that it takes a clear carbon impression and allows multiple copies. The weight of paper used for carbon copies is usually 8 to 13 pounds and is often called **second sheets**, **onionskin**, or **manifold**.
- B. In addition to having a smooth surface, some second sheets come with either a glazed or cockle finish. Because second sheets are so thin and smooth, they are often difficult to handle. Sheets with cockle finish slip less than the others and give the appearance of being better quality, but they create more bulk in the files and result in poorer quality multiple copies.
- C. Many offices use second sheets that have the word "copy" printed on them to make it more evident that the typewritten page is a copy.
- D. Various colors of second sheets are used by some firms to aid in distribution of copies. For example, a branch office may receive a blue copy while a customer receives the yellow copy. White, pink, and yellow second sheets provide the most legible copies.

IV. Carbon Paper

- A. Carbon paper comes in different finishes, weights, and styles, each designed for a particular situation. These factors should be considered when selecting carbon paper:
 - 1. Cleanliness
 - 2. Tendency to curl
 - 3. Color and sharpness of the copy
 - 4. Manifolding ability (ability to maintain the strength of color and writing sharpness through the full number of copies being made)
 - 5. Ease of handling
 - 6. Wearability
 - 7. Weight of the original and second sheets
 - 8. Size and sharpness of the typeface
 - 9. The typewriter platen

- B. Because there are so many factors involved in the selection of carbon paper, it is best to remember a few basic facts and then to use a chart in the final selection process. (A chart to aid in selection can usually be found in reference manuals, in office supply catalogs, or many times on the box of carbon paper itself.)
1. There are two basic styles of carbon paper--one designed for pen or pencil and the other for machines.
 2. There are three basic finishes of carbon paper--soft, hard, and medium.
 3. There are four different weights of carbon paper--light, medium, medium standard, and standard. Generally speaking, lightweight carbon paper produces the sharpest impression and makes the most copies at one time (manifold is best).
- C. Carbon film is more durable than carbon paper because it has a plastic backing instead of a paper backing. In addition, carbon film usually has a plastic base which employs ink, not carbon, for making the transfer. Even though carbon film is more durable, is curl free, and is easier to handle, it is initially more expensive, and most offices use carbon film only for work in which high quality is needed.
- D. There are many special features available with carbon paper.
1. Micrometric ruling--This carbon paper is approximately 1/4 inch wider than ordinary carbon paper. The tissue that extends beyond the right edge of the typing paper contains a printed vertical-line scale reading from 65 to 1, top to bottom. This enables the typist to determine the number of vertical typing lines remaining on a page.
 2. Carbon sets--A carbon set consists of sheets of carbon paper and copy paper which are fastened together and assembled properly. This type of set usually comes as a pad. Another type of carbon set has a number of easily detached sheets of copy paper with a sheet of carbon paper attached to them. The letterhead is then placed on top of the sheet. Carbon sets are more expensive to use because the carbon paper in sets can be used only one time.
 3. Easy to handle edges--Some carbon paper has cut corners so that the carbon paper can be separated from the typed copy more easily. Others have an uncoated edge extending beyond the bottom of the side of the typing paper.
- E. The trend in many offices today is toward making multiple copies of letters and reports on an office copier. When this procedure is used, usually only the file copy is a typed carbon copy.

V. Letterheads and Envelopes

- A. Letterheads vary from company to company but usually contain the following basic information: the company's name, address, and telephone number along with the name and title of an individual or perhaps information about a company's product or trademark.
- B. Letterhead stationery comes in a variety of sizes. The four most common are:
 - 1. **Standard** (8 1/2" x 11") generally used for ordinary business correspondence
 - 2. **Official** (8" x 10 1/2") used by federal agencies including the military
 - 3. **Monarch** (7 1/4" x 10 1/2") often used by executives for a more personal effect or on informal occasions
 - 4. **Baronial** (5 1/2" x 8 1/2") often used by executives for a more personal effect or on informal occasions
- C. For a two-page letter, letterhead is not used for the second page. However, the plain second page should be of the same quality and finish as the letterhead.
- D. Many times, top management in a company has a prestige letterhead which is different from the standard company letterhead in style, printing process, weight, and cotton fiber content.
- E. The business envelope should match the letterhead in terms of the quality, weight, and color of paper. Also, the style of printing used for the return address on the envelope should match the printing on the letterhead.
- F. Business envelopes usually come in two sizes--No. 10 (9 1/2" x 4 1/8") and No. 6 3/4 (6 1/2" x 3 5/8"). Businesses usually prefer the larger envelope because fewer folds are required for insertion and because more enclosures can be included with the letter.
- G. Window envelopes can be purchased also. This type of envelope has a transparent window through which the address of the letter can be seen, making it unnecessary to address the envelope. However, this type of envelope is usually reserved for mailing bills, statements, and form letters.

VI. Correction Products

- A. **Erasers** are available in a variety of sizes and textures. Basically, two kinds are needed to correct errors--a soft eraser (usually pink) to remove surface ink and carbon smears,

and a more abrasive eraser (usually gray or white) to remove imbedded ink.

1. When using an eraser, use a flat metal or plastic shield with letter-height open spaces to confine the erasing.
 2. Electric erasers are available. The tip of the eraser is small enough so that one letter at a time can be erased. A shield, therefore, is not needed.
 3. Art gum erasers can be used to remove carbon smears and fingerprints. Art gum erasers have excellent cleaning properties and do not injure the paper when erasing.
 4. Cover-ups can be used to fade out an erasure. A commercial cover-up stick, an aspirin, or a piece of chalk can be rubbed into the paper before typing the correction.
- B. **Correction fluid**, a quick-drying enamel, can be painted over an error. Correction fluid is usually white but can be specially blended to match colored stationery. Because corrections made with fluid are usually detectable, it is best to use correction fluid when typing an original for photo offset or when making a carbon for the files. A special waterbase formula has also been developed, which is best to use when you are planning to correct photocopies.
- C. **Correction paper**, strips of paper coated on one side with a chalklike chemical, are used in some offices. The coated side is placed over the error and the typist backspaces and retypes the error. The correction is then typed over this. Correction paper has several disadvantages:
1. The coating rubs off rather easily making the correction appear as a strikeover.
 2. If the correspondence or report is read so that the light comes from behind, the correction will show as a strikeover.
 3. If materials corrected in this manner are reproduced on certain copying machines, the errors appear as strikeovers.
- D. **Correction tape** is a white, self-adhesive paper that is available in one-line or wider widths. The tape is cut off in the length needed and placed over the error. Corrections are then typed on top of the tape. This method should not be used on original correspondence since the correction is obvious. It is reserved for material that is to be duplicated by photographic or offset processes, for dummy layouts, or for interoffice material where appearance may not be important.

E. **Lift-off** correction ribbons or strips contain a chemical that interacts with the ink on the paper and literally lifts off the error.

1. Many typewriters are equipped with a special feature which allows the typist to backspace with a coded key. The error might be removed automatically (using the typewriter's "memory") or the typist might need to retype the error. A carbon or film ribbon is needed in the typewriter along with the lift-off ribbon.
2. Lift-off correction strips are also available (similar to the correction cover-up strips). The same procedure is used as when using cover-up strips except that a film or carbon typewriter ribbon must be used.
3. This is the best method for correcting errors.

VII. Word Processing/Computer Supplies

- A. Word processing equipment for office functions varies widely. Although word processing equipment uses basically the same types of supplies, each brand of equipment often requires purchasing supplies peculiar to that brand. Types of supplies normally needed include:
1. Cassette tapes
 2. Magnetic cards or magnetic tape
 3. Floppy disks/diskettes or hard disks
- B. The advent of the minicomputer and word processing programs for computers has brought about the use of computers in office functions even for word processing. Supplies possibly needed for computers would include:
1. Floppy disks or hard disks
 2. Printer supplies such as ribbons, letterheads, forms, labels, etc., which can be automatically form fed. (Most offices now use sophisticated printers which allow feeding of regular office stationery, however.)

Unit VII - Office Procedures and Organization
Lesson 1 - Selecting Office Supplies

ASSIGNMENT SHEET 1: Availability and Cost of Office Supplies

Directions: For this assignment, you will need information on the cost of office supplies from two local sources. You may use catalogs, price lists, or showroom visits to determine your answers. Complete the following sheet, listing the price of each office supply from each local supplier. If the product is not available, write NA in the blank. Circle the better price for each item.

	Supplier 1	Supplier 2
	Name: _____	Name: _____
1. Typewriter Ribbons		
a. One-use film ribbons (per dozen)	_____	_____
b. Multiuse film ribbons (per dozen)	_____	_____
c. Cotton ribbons (per dozen)	_____	_____
d. Nylon ribbons (per dozen)	_____	_____
2. Office Stationery		
a. Bond paper (per ream)	_____	_____
b. Letterhead stationery (per ream)	_____	_____
c. Second sheets (per ream)	_____	_____
d. Onionskin sheets (per ream)	_____	_____
3. Carbon Paper (standard weight, for typewriter, per box)	_____	_____
4. Carbon Sets (for invoices, per box)	_____	_____
5. Envelopes		
a. No. 10 (per box/500)	_____	_____
b. No. 6 1/4 (per box/500)	_____	_____
c. Window envelopes (per box/500)	_____	_____
6. Correction Devices		
a. Erasers (pencil, typewriter, per dozen)	_____	_____
b. Correction fluid (per bottle)	_____	_____
c. Correction paper (per package)	_____	_____
7. Computer Supplies		
a. Form fed paper (per box/500)	_____	_____
b. Floppy diskettes (4 1/2", per dozen)	_____	_____

Unit VII - Office Procedures and Organization
Lesson 1 - Selecting Office Supplies

ANSWERS TO ASSIGNMENT SHEET

Students' answers will vary depending upon the supplier, brand, and quality of items used.

Unit VII - Office Procedures and Organization
Lesson 1 - Selecting Office Supplies

POSTTEST 1 (with questions about carbon paper)

I. Match the following terms with their definitions by placing the letter of the correct definition in each blank.

- | | | |
|-------|-----------------------|--|
| _____ | 1. fabric ribbons | a. a number based on the weight of ream of 17-x 22-inch paper. |
| _____ | 2. film ribbons | |
| _____ | 3. rag | b. cotton, silk, or nylon typewriter ribbons |
| _____ | 4. watermark | |
| _____ | 5. erasability | c. the cotton fiber contained in stationery |
| _____ | 6. substance | |
| _____ | 7. second sheets | d. the paper on which a carbon copy is typed |
| _____ | 8. micrometric ruling | e. stationery often used by executives for informal occasions |
| _____ | 9. carbon sets | |
| _____ | 10. baronial | f. the sketch in the weave of stationery |
| | | g. sheets of carbon paper and copy paper fastened together |
| | | h. coated, one-time typewriter ribbons |
| | | i. carbon paper which contains an extension showing the number of vertical lines remaining on a page |
| | | j. special sizing in bond papers which keeps ink impressions from absorbing immediately |

II. True-False: Place a T in the blank if the statement is true; and an F if the statement is false.

- _____ 11. One-use film ribbon is preferred for high-quality work because it produces uniformly even type on a page.

- _____ 12. A cotton fabric ribbon gives a sharper impression than a silk fabric ribbon.
- _____ 13. Fabric ribbons produce a better photocopy than a film ribbon.
- _____ 14. Film ribbons are more costly than fabric ribbons.
- _____ 15. Paper with 100 percent rag fiber is preferred for wills and deeds because it is the most durable.
- _____ 16. Sulphite is a term used to describe paper made from wood pulp.
- _____ 17. Stationery that has met certain requirements (strength, long life, and durability) for high-grade paper is labeled as "bond" paper.
- _____ 18. Bond paper cannot have a wood pulp content.
- _____ 19. The most difficult papers on which to make neat erasures and corrections are the inexpensive all-sulphite ones.
- _____ 20. Letterhead varies from company to company but basic information such as the company name, address, and telephone number can usually be found on all letterheads.
- _____ 21. Most companies have a special letterhead sheet made for the second page of a two-page letter.
- _____ 22. Business envelopes should match the letterhead in both quality and style of printing.
- _____ 23. When erasers are used for making corrections, a hard, white eraser is best for erasing imbedded ink on an original.
- _____ 24. Correction fluid is often used on originals to cover up several words rather than taking valuable time to erase or to retype.
- _____ 25. Correction paper places a special coating over errors and the typist then retypes the correct letter over the covered error.
- _____ 26. When using correction paper for correcting errors on copy that is going to be reproduced, it is possible--with certain types of photocopying machines--that the error will appear as a strikeover.
- _____ 27. It is possible to place correction tape over an error--even on original correspondence--since the tape blends in with the letterhead paper.

- _____ 28. Lift-off correction strips contain a chemical that interacts with the ink on paper and "lifts off" the error.
- _____ 29. A carbon or film ribbon needs to be used when using lift-off correction strips.
- _____ 30. Because many offices today use minicomputers with word processing programs, printer supplies are needed for daily output.

Unit VII - Office Procedures and Organization
Lesson 1 - Selecting Office Supplies

POSTTEST 2 (without carbon paper questions)

- I. Match the following terms with their definitions by placing the letter of the proper definition in each blank.

- | | | |
|-------|-----------------|---|
| _____ | 1. film ribbons | a. a number based on the weight of a ream of 17- x 22-inch paper |
| _____ | 2. rag | b. the cotton fiber contained in stationery |
| _____ | 3. watermark | c. the sketch in the weave of stationery |
| _____ | 4. erasability | d. coated, one-time typewriter ribbons |
| _____ | 5. substance | e. special sizing in bond papers which keeps ink impressions from absorbing immediately |

- II. True-False: Place a T in the blank if the statement is true; and an F if the statement is false.

- | | |
|-------|---|
| _____ | 6. One-use film ribbon is preferred for high-quality work because it produces uniformly even type on a page. |
| _____ | 7. A cotton fabric ribbon gives a sharper impression than a silk fabric ribbon. |
| _____ | 8. Fabric ribbons produce a better photocopy than a film ribbon. |
| _____ | 9. Film ribbons are more costly than fabric ribbons. |
| _____ | 10. Paper of 100 percent rag fiber is preferred for wills and deeds because it is the most durable. |
| _____ | 11. Sulphite is a term used to describe paper made from wood pulp. |
| _____ | 12. Stationery that has met certain requirements (strength, long life, and durability) for high-grade paper is labeled as "bond" paper. |
| _____ | 13. Bond paper cannot have a wood pulp content. |

- _____ 14. The most difficult papers on which to make neat erasures and corrections are the inexpensive all-sulphite ones.
- _____ 15. Letterhead varies from company to company but basic information such as the company name, address, and telephone number can usually be found on all letterheads.
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- _____ 17. Business envelopes should match the letterhead in both quality and style of printing.
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- _____ 19. Correction fluid is often used on originals to cover up several words rather than taking valuable time to erase or to retype.
- _____ 20. Correction paper places a special coating over errors and the typist then retypes the correct letter over the covered error.
- _____ 21. When using correction paper for correcting errors on copy that is going to be reproduced, it is possible on certain types of photocopying machines that the error will appear as a strikeover.
- _____ 22. It is possible to place correction tape over an error even on original correspondence since the tape blends in with the letterhead paper.
- _____ 23. Lift-off correction strips contain a chemical that interacts with the ink on paper and "lifts off" the error.
- _____ 24. A carbon or film ribbon needs to be used when using lift-off correction strips.
- _____ 25. Because many offices today use minicomputers with word processing programs, printer supplies are needed for daily output.

Unit VII - Office Procedures and Organization
Lesson 1 - Selecting Office Supplies

POSTTEST KEYS

Posttest 1 (with carbon paper):

I.	1.	b	II.	11.	T	21.	F
	2.	h		12.	F	22.	T
	3.	c		13.	F	23.	T
	4.	f		14.	T	24.	F
	5.	j		15.	T	25.	T
	6.	a		16.	T	26.	T
	7.	d		17.	T	27.	F
	8.	i		18.	F	28.	T
	9.	g		19.	T	29.	T
	10.	e		20.	T	30.	T

Posttest 2 (without carbon paper):

II.	1.	d	II.	6.	T	16.	F
	2.	b		7.	F	17.	T
	3.	c		8.	F	18.	T
	4.	e		9.	T	19.	F
	5.	a		10.	T	20.	T
				11.	T	21.	T
				12.	T	22.	F
				13.	F	23.	T
				14.	T	24.	T
				15.	T	25.	T

Unit VII - Office Procedures and Organization
Lesson 2 - Requesting Secretarial Supplies

LESSON OBJECTIVES

1. Given a secretarial supplies checklist, the student will identify the supplies that a secretary would need with 90 percent accuracy within 20 minutes.
2. Given a list of office situations involving purchasing office supplies, the student will list the circumstances when a requisition should be used and when a purchase order should be utilized with 90 percent accuracy within 15 minutes.
3. Given the task of purchasing supplies for an office, the student will list the factors to be considered before ordering supplies with 90 percent accuracy within 20 minutes.
4. Given the task of stocking a supply cabinet, the student will list the procedures for maintaining an orderly supply cabinet with 90 percent accuracy within 20 minutes.

SUGGESTED ACTIVITIES

- I. Instructor
 - A. Provide objectives, information sheets, and handout for students.
 - B. Assign Assignment Sheets.
 - C. Give posttest.
- II. Student
 - A. Read and discuss objectives, information sheets, and handout.
 - B. Complete Assignment Sheets.
 - C. Take posttest.

INSTRUCTIONAL MATERIALS

- I. Objective Sheet
- II. Information Sheets
- III. Handout
 - A. HO 1: Inventory List of Basic Supplies Required by Secretaries

IV. Transparency Masters

- A. TM 1: Requisition for Forms and Supplies
- B. TM 2: Blank Purchase Order
- C. TM 3: Completed Purchase Order

V. Assignment Sheets and Answers

- A. AS 1: Preparing a Requisition Form
- B. AS 2: Preparing a Purchase Order

VI. Posttest and Key

Unit VII - Office Procedures and Organization
Lesson 2 - Requesting Secretarial Supplies

INFORMATION SHEET

Progress on a task can be interrupted if a secretary runs out of supplies in the middle of a job. It is important, therefore, to be aware of the basic supplies needed by a secretary, the appropriate quantity to keep on hand in the desk, an orderly procedure to follow in stocking a supply cabinet, and the proper steps to follow in requisitioning supplies from a central stockroom or when ordering directly from a supplier.

I. Maintain a checklist of basic supplies. (Refer to HO 1)

II. Requisition/Order Supplies

- A. In larger businesses, a central stockroom maintains supplies for the entire company.
 - 1. In this case, a requisition form is filled out by a secretary when supplies are needed.
 - 2. This requisition form usually asks for the following information: the date, department, and person requesting the material, as well as the quantity and description of supplies being requested. (In most cases, when forms are being requested, the number of the form must also be indicated.) (TM 1)
- B. In smaller businesses, the executive usually delegates to the secretary the responsibility of procuring the proper office supplies directly from vendors. Be aware of the following factors before purchasing supplies:
 - 1. Most supplies come in a wide range of quality.
 - a. Determine the quality range of the business by observing what has been purchased in the past and by looking at cost records.
 - b. Be cautious about buying unknown brands. They often contain inferior materials or may be off-sized. Consequently, they may be more expensive in the long run.
 - c. You usually get what you pay for.
 - d. When thinking about changing brands or trying a new product, get a sample first and test it under normal circumstances. Compare prices and quality.
 - 2. There are several sources of supplies.

- a. Local supply stores may offer the product needed. However, these stores usually carry only one or two brand names of each item and the selection may, therefore, be limited.
 - b. Large office supply agencies may carry more variety.
 - (1) They often have sales representatives who call on secretaries or purchasing agents to help them in making wise choices.
 - (2) Dependable sales representatives can often save the secretary much time because they are familiar with what is available on the market.
 - (3) They usually have catalogs and samples which are left in each office. The secretary or purchasing agent can then order by phone, again helping to save valuable time.
 - c. Sometimes a specific piece of equipment produces better results when using the supplies sold by a manufacturer that are made especially for use with that piece of equipment. When this is the case, supplies may be either ordered directly from the manufacturer or possibly ordered through a local supply store by special request.
3. Ordering supplies in large amounts often enables the purchaser to receive a discount. However, the wise secretary avoids overbuying.
- a. Some supplies deteriorate when they are held in stock too long--carbon paper dries and hardens, some paper becomes yellow, erasers harden, liquids evaporate, etc.
 - b. Often not enough storage space is available to accommodate the purchase of large quantities of supplies.
4. Check around with several suppliers and vendors before purchasing paper. Some suppliers have arrangements whereby a year's supply of paper may be purchased at one time (thus giving a price break), but the paper is delivered in specific lots at designated intervals through the year.
- C. Because suppliers often furnish helpful literature about existing products or new products on the market, it is possible for a secretary to collect and file such information. Keep folders of information organized by subject by collecting literature from sales representatives or from visiting office equipment and supplies exhibits.

D. When ordering supplies from a vendor, fill out a purchase order. (TM 2)

1. Purchase orders are prenumbered and have the name and address of the company ordering the supplies printed on them.
2. When filling out a purchase order, type in the current date, where the supplies should be shipped ("SAME" can be typed when shipping to the same address as printed), and the date by which the materials are needed. (When ordering from out of town, allow at least two weeks in most instances. Many supply catalogs will indicate the amount of lead time required.)
3. Fill in the quantity, description (catalog or item number when there is one), unit price, and total price. (The vendor will usually compute the tax and total the order.)
4. Many secretaries indicate at the bottom of the purchase order the name and address of the vendor.
5. Most companies require that at least two copies of the purchase order be made--one to be mailed to the vendor and the other to be retained for the files.
6. Often three copies are made--one to be retained for the files, two to send to the vendor so that one can be returned with the order. (TM 2, TM 3)

III. Storage of Supplies

- A. Most offices have a storage cabinet in which a quantity of supplies may be kept.
- B. A well-arranged storage cabinet has the following characteristics:
 1. Materials used most frequently are placed to the front and on a convenient level for reaching; small items are placed at eye level with bulk supplies on lower shelves.
 2. Similar items are kept together.
 3. Packages are identified with large lettering or with a sample attached to the outside of the package.
 4. Stationery and unpadded paper is kept in open-end boxes or in the original wrapper with the end torn off neatly. (Open only one ream of paper at a time.)
 5. Loose supplies (paper clips, push pins, pencils, etc.) are kept separately in marked open boxes.

- C. Shelves can be labeled as to where each item belongs. It is also wise to post a list of all supplies by shelves on the inside of the cabinet door.

INVENTORY LIST OF BASIC SUPPLIES REQUIRED BY SECRETARIES:

Ball-point and felt-tip pens
Bond paper for second pages
Carbon paper or carbon packs
Copyholder
Correction fluid, paper, or tape
Date stamp and ink pad
Desk calendar
Dictionary and reference books
Dustcloth
Envelopes
Erasers and erasing shield
File guides, folders, and labels
Index cards
Interoffice stationery
Letter opener
Letterheads
Memo pads
Onionskin paper for copies
Paper clips
Pencil sharpener
Pencils
Plain paper for rough drafts
Requisition forms
Rubber bands
Rubber cement
Ruler
Scissors
Stapler, staples, staple puller
Telephone message forms
Tickler file and/or address file
Wastebasket

Completed Purchase Order

MIDLAND Insurance Co.
One Broadway
Columbia, Missouri 65201

Purchase Order Number: 240 H 136

Date: June 1, 19--

Vendor: _____

Ship to: _____

WAYVILLE OFFICE PRODUCTS

MIDLAND Insurance Co.

10 SOUTH FIFTH STREET

One Broadway

COLUMBIA, MISSOURI 65201

Columbia, Missouri 65201

Needed by: June 24, 19--

Quantity	Description	Unit Price	Total Price
1 Carton (6 pkgs)	FF3-CL file folder labels	\$ 3.09/pkg	\$ 18.54
4 Boxes	152-1/3-BE file folders	\$ 17.50	\$ 70.00
1 Box	68-769 vinyl binders	\$ 9.96	\$ 9.96
218			
TOTAL			\$ 98.50

Unit VII - Office Procedures and Organization
Lesson 2 - Requesting Secretarial Supplies

ASSIGNMENT SHEET 1: Preparing a Requisition Form

Directions: On the following requisition form, request the supplies listed below using your name, today's date, Claims Department, and telephone number 872-4241.

- 2 reams 8 1/2" x 11" 20 lb. bond paper (white)
- 2 memo pads, form No. M-32.1-M
- 3 boxes paper clips

Requisition for Forms and Supplies

DATE: _____

TO: Supply

FROM: _____ TELEPHONE NO. _____ DEPT: _____

[illegible]

Unit VII - Office Procedures and Organization
Lesson 2 - Requesting Secretarial Supplies

ASSIGNMENT SHEET 2: Preparing a Purchase Order

Directions: Use the purchase order provided to request the items listed below from a local office supply company. Have them shipped to you at Midland Insurance Company. Use the current date. Indicate that you need the items three weeks from the date of the order. (Use a current calendar to figure the exact date.)

1 carton (10) 5 1/4" diskettes, item #34-H, \$32.50

1 carton (3000 forms) data bond computer paper, #04-E, \$36.09

1 stapler, item #13-S, \$13.75

Purchase Order

MIDLAND Insurance Co.
One Broadway
Columbia, Missouri 65201

Purchase Order Number: 240 H 136

Date:

Vendor: _____

Ship to: _____

Needed by:

Quantity	Description	Unit Price	Total Price
	222		
	TOTAL		

Unit VII - Office Procedures and Organization
Lesson 2 - Requesting Secretarial Supplies

POSTTEST

1. List 25 basic supplies needed by a secretary.

- | | |
|----|----|
| a. | n. |
| b. | o. |
| c. | p. |
| d. | q. |
| e. | r. |
| f. | s. |
| g. | t. |
| h. | u. |
| i. | v. |
| j. | w. |
| k. | x. |
| l. | y. |
| m. | |

2. Describe the circumstances under which a requisition and purchase order would be used to procure supplies.

a. Requisition:

b. Purchase order:

3. List four factors to be considered before deciding what supplies to order (where to order, what quality, etc.).
 - a.
 - b.
 - c.
 - d.
4. List at least five procedures to follow in maintaining an orderly supply cabinet.
 - a.
 - b.
 - c.
 - d.
 - e.

Unit VII - Office Procedures and Organization
Lesson 2 - Requesting Secretarial Supplies

POSTTEST KEY

1. Answers should include 25 items listed in the Handout (HO 1).
2. a. Requisition--A requisition is used when a company has a central stockroom which maintains supplies for an entire company. The secretary then "orders" supplies from the stockroom through the requisition.

b. Purchase Order--A purchase order is used when ordering supplies from an outside vendor. In a small business where there is no purchasing department, the secretary may order directly from a vendor with the purchase order.
3. a. Consider quality--Know the range of quality the business desires. Be cautious about buying unknown brands. You get the quality you pay for. Try test samples of new or different products before purchasing them.

b. Consider source--Consult local supply stores first. Larger supply stores offer more variety and have sales representatives who will visit the office and help the secretary make wise choices. Check to see if the supply store has catalogues to be left in the office for convenience in ordering. Determine whether or not specific brands are needed to enable particular equipment to function better.

c. Avoid overbuying when proper storage is not available or when ordering supplies that deteriorate easily.

d. Check for price breaks (especially paper) where the vendor is willing to give a quantity discount but deliver the item in specific lots throughout the year.
4. Answers should include five of the following:
 - a. Keep similar items together.
 - b. Frequently used items should be placed to the front and on a convenient level for reaching.
 - c. Bulk items should be placed on lower shelves with small items at eye level.
 - d. Identify packages with large lettering or a sample attached to the outside.
 - e. Keep stationery or unpadding paper in boxes (one ream at a time) or in original wrapper with end torn off.

- f. Small, loose supplies (pencils, paper clips) should be kept in open boxes.
- g. Label shelves as to where items belong and post a list of supplies (by shelves) on the inside of the door to the cabinet.

Unit VII - Office Procedures and Organization
Lesson 3 - Organizing the Work Station

LESSON OBJECTIVES

1. Given the necessary cleaning and desk supplies and a desk organization checklist, the student will clean and organize materials on his/her desk with 90 percent accuracy within 10 minutes.
2. Given a test requiring 30 answers concerning the efficient placement and use of supplies on or within the work station, the student will correctly answer the questions with 90 percent accuracy within 20 minutes.

SUGGESTED ACTIVITIES

I. Instructor

- A. Provide objectives and information sheets for students.
- B. Use TM's 1, 2, and 3 to show desk arrangements, drawer arrangements, and modular work stations.
- C. Assign Assignment Sheet. Assignment Sheet 1 indicates that the instructor will provide students with several office supply items. Cleaning supplies should also be provided. In addition, you may wish to include other types of office supplies or extraneous items which students should not include in the work station organization.

II. Student

- A. Read and discuss objectives and information sheets.
- B. Complete Assignment Sheet.
- C. Take posttest.

INSTRUCTIONAL MATERIALS

I. Objective Sheet

II. Information Sheets

III. Transparency Masters

- A. TM 1: Desk Top Arrangement
- B. TM 2: Top Center Drawer Arrangement and Top Side Drawer with Stationery
- C. TM 3: Modular Work Station

IV. Assignment Sheet and Answers

A. AS 1: Arranging a Desk

V. Posttest and Key

Unit VII - Office Procedures and Organization
Lesson 3 - Organizing the Work Station

INFORMATION SHEET

A secretary is usually assigned a work area of his/her own, which will include a desk and chair along with needed equipment and supplies. This work area might be the traditional L-shaped secretarial desk with a typewriter/computer terminal/word processor. It might include a credenza or worktable behind the desk, or it might be a modernistic modular unit, which would include hanging components where shelving and cabinets are suspended above the work surface.

Whatever the type of work station, the appearance of the station reflects the secretary's work habits and personality. The station should be arranged so that work can be performed efficiently. To determine the best arrangement for equipment and supplies, the individual work style should be studied by asking the following questions: (1) What equipment and supplies are used most often? (2) What equipment and supplies are seldom used? (3) Which hand is used for writing?

Once these questions have been answered and the individual work style has been determined, it is time to arrange the work station so that it is neat as well as functional.

I. The Desk Top

- A. As a general rule, place on the desk only those items that are in constant use.
 - 1. A telephone, typewriter/computer/word processor (if daily routine calls for one), calendar, in-out tray, small rotary file (for names, addresses, and telephone numbers of frequently contacted clients, customers, etc.), tickler file (a memory device), reference books (such as a dictionary, company manual, telephone books), a notebook and pen or pencil for taking telephone messages, a vertical file or stand in which to keep projects currently being worked on or in which to keep reference materials, and a shorthand pad or dictation equipment (if needed) are suggested items on a desk top checklist.
 - 2. Do not let coffee cups, messages, or literature accumulate on the desk. When using scissors, tape, etc., that are normally kept in a desk drawer, return them immediately after you have finished using them.
- B. Arrange the items on the desk in such a way that they are easy to reach, with the materials used most frequently within the easiest reach.

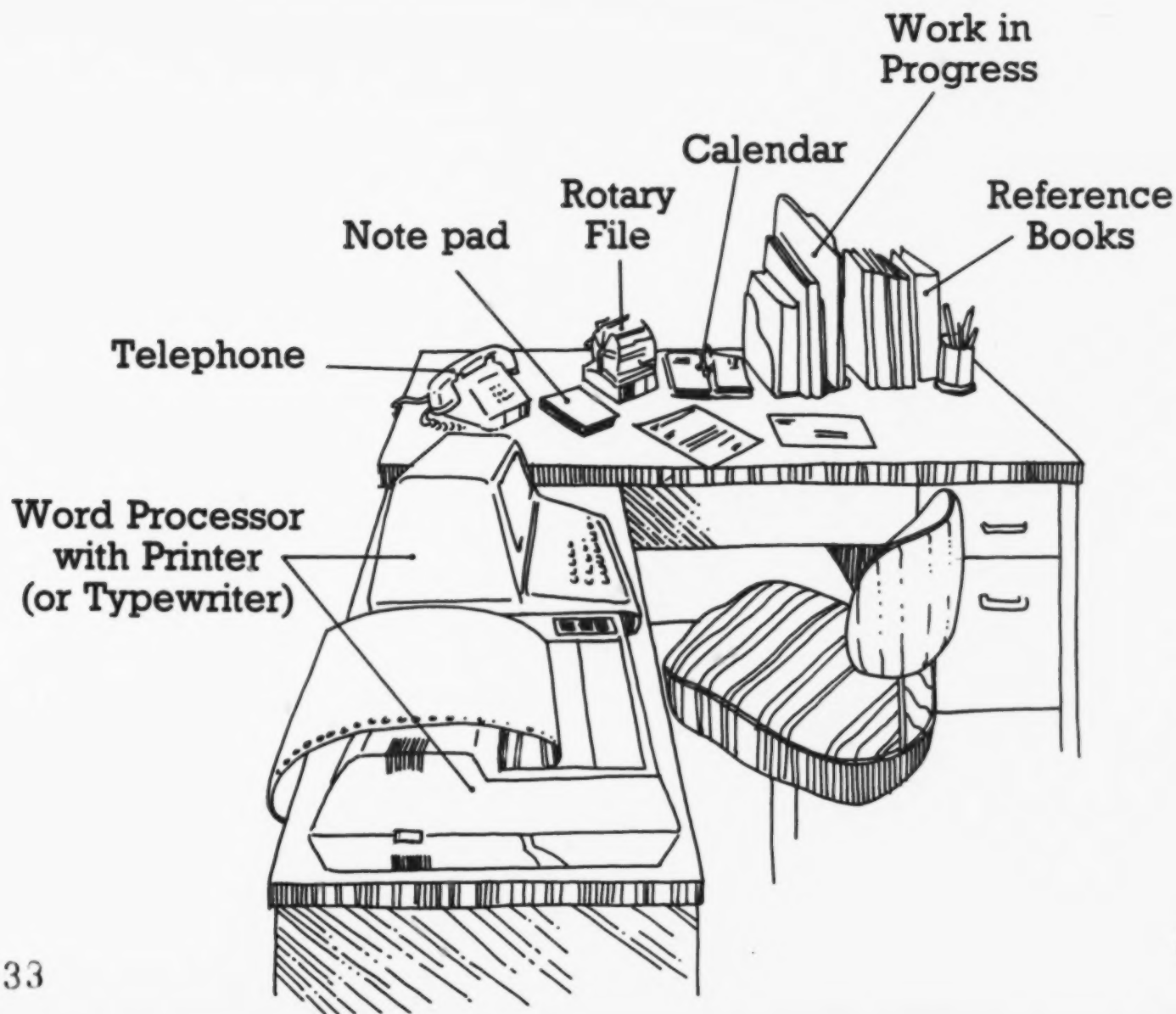
1. Keep the middle and front of the desk top clean for a work area, arranging the equipment and supplies in a semicircle around the outside of the desk.
2. Right-handed people should place the telephone on the left side of the desk so that it can be answered with the left hand, leaving the right hand free to write messages.
3. Place note pads and pens or pencils (in containers) close to the phone.
4. Be sure the typewriter and telephone are close together if a great part of the day is spent typing as well as answering the phone.
5. Place projects currently being worked on in a desk organizer (such as a vertical stand) rather than stacking them on top of each other. (TM 1)

II. Desk Drawers

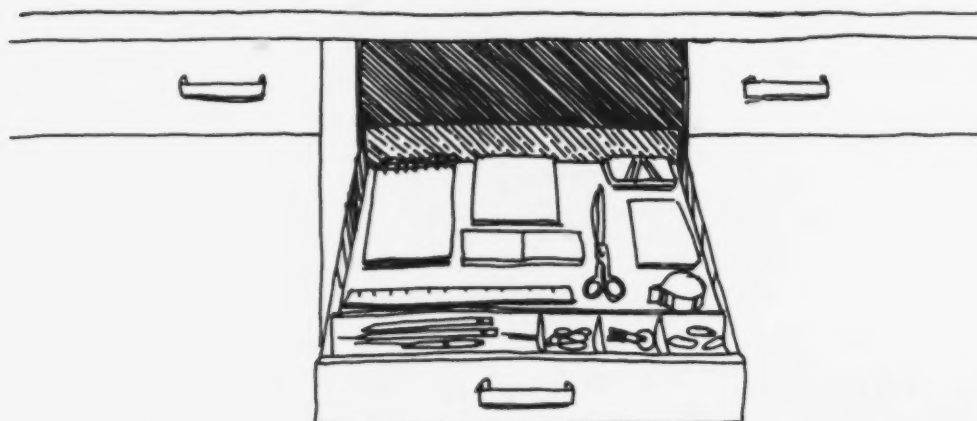
- A. The center top desk drawer is reserved for frequently used supplies. A compartment tray in the front part of the drawer can be used for pencils/pens, paper clips, rubber bands or correction supplies. The rest of the drawer can be used for rulers, stapler, scotch tape, staple puller, letter opener, date stamp, and scissors. A secretary might also choose to place shorthand notebooks and note pads in this drawer rather than placing them on top of the desk. (TM 2)
- B. The typical L-shaped desk will have one pedestal containing two or three drawers.
 1. The top drawer can be partitioned with sloping dividers for letterhead stationery, plain bond paper, carbon sets, memorandum paper, official company forms, and mailing labels. There can be a front vertical partition which allows a space for stacking envelopes. (Timesaver hint: if carbon paper and second sheets are used, place them in the order of use so that a sheet of letterhead can be followed by a sheet of carbon to be followed by a second sheet--supplies will already be in order for assembling.) (TM 2)
 2. A middle side drawer can be used for surplus supplies, such as pencils, felt tip pens, extra notebooks, glue, typewriter ribbons, and cleaning fluid.
 3. The bottom side drawer is often designed to accommodate personal belongings, such as facial tissues, comb or brush, mouthwash, purse, etc.

4. Often when the pedestal contains only two drawers, the top one is divided for stationery but the bottom drawer is a file drawer. When this is the case, personal belongings can still be kept in the back of the drawer, with work in progress files, schedules, timetables, additional references, and daily work folders being kept in the file section.
- III. Personal items such as flowers or photographs may also be kept on a desk. Care should be taken to have only one or two personal items and to place them where they will not interfere with work progress.
 - IV. Modular work stations allow more variety and flexibility in organizing equipment and supplies. (TM 3)
 - V. Many executives, especially when they are among the top executives or when they handle clients continually, prefer that their secretaries present neat and uncluttered desks at all times. When this is the case, the secretaries may have a work table or credenza behind the desk where actual typing or other work is conducted.
 - VI. In addition to efficient arrangement of equipment and supplies, the secretary is responsible for keeping the desks dust free. Most offices have maintenance people who sweep and empty wastebaskets each evening, but dusting furniture is usually the secretary's responsibility. Files, cabinets, chair arms, etc., need to be cleaned frequently. Each executive differs in preference, but usually the executive will arrange her/his own desk, leaving the dusting and polishing to the secretary.

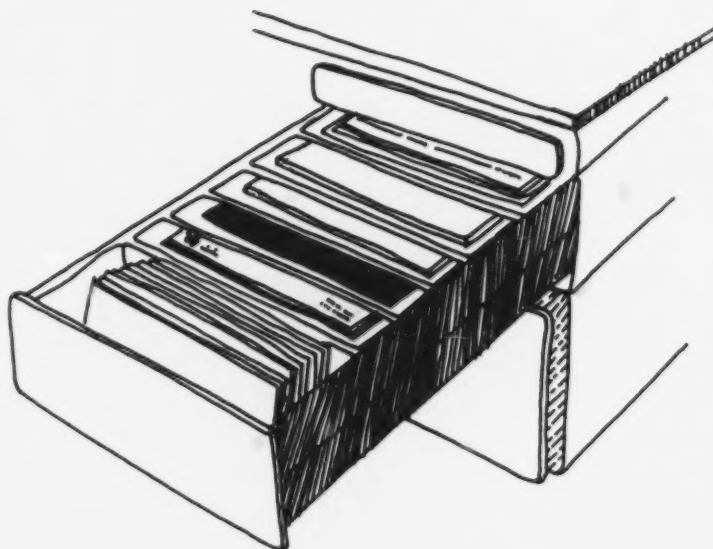
Desk Top Arrangement



Top Center Drawer Arrangement



Top Side Drawer with Stationery



Envelopes
Letterhead
Carbon Paper
Second Sheets
Plain Bond
Memo Forms

Supplies are arranged in order of use from front to back of drawer.

Modular Work Stations



265

236

237

TM 3

Unit VII - Office Procedures and Organization
Lesson 3 - Organizing the Work Station

ASSIGNMENT SHEET 1: Arranging a Desk

Directions: For this assignment, your teacher will provide the following items: a telephone, a typewriter (or computer or word processor), a calendar, an in-out tray, reference books, a vertical file, a notebook, a pencil container, business stationery, carbon paper, envelopes, paper clips, correction devices, scotch tape, scissors, and other office supplies. Within 10 minutes, correctly arrange the supplies on a clean desk.

Unit VII - Office Procedures and Organization
Lesson 3 - Organizing the Work Station

ANSWERS TO ASSIGNMENT SHEET

Assignment Sheet 1

Within 10 minutes, students should clean the desk and arrange the supplies as follows:

Top of desk: telephone, typewriter, calendar, in-out tray, rotary file, reference books, vertical file, notebook, pencil container, personal photographs or flowers

Center top drawer: pencils and pens, paper clips, rubber bands, correction supplies, ruler, stapler, scotch tape, staple puller, letter opener, date stamp, scissors, shorthand notebooks, note pads

Top side drawer: business stationery, envelopes, carbon paper, second sheets, company forms, mailing labels, plain typing paper, memorandum paper

Second drawer: surplus supplies, cleaning fluid, typewriter ribbons

Bottom drawer: files, schedules, timetables, additional references, work folders, personal items such as purse, tissues, etc.

See TM 1 and 2 for placement of items on desk top and top drawer.

POSTTEST

- _____ 1. Which of the following items does not belong on a desk top?

a.	telephone	c.	typewriter
b.	scissors	d.	shorthand pad
- _____ 2. The top, center drawer should contain all of the following items except:

a.	ruler	c.	letterhead
b.	letter opener	d.	staple puller
- _____ 3. The typical L-shaped desk with one pedestal usually has each of the following items in the top drawer except:

a.	company official forms	c.	extra notebooks
b.	envelopes	d.	carbon sets
- _____ 4. When the secretarial L-shaped desk has a 2-drawer pedestal, which of the following items would not be kept in the second drawer?

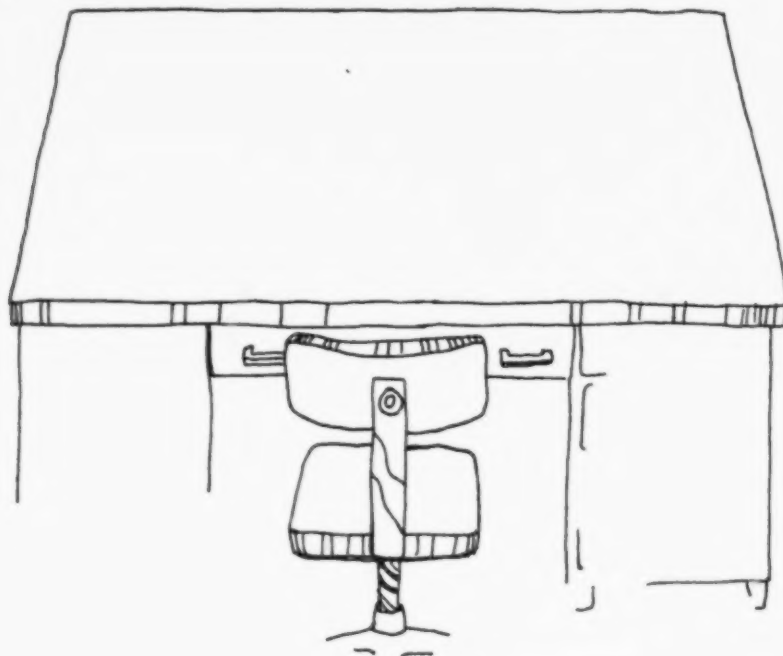
a.	cleaning fluid	c.	personal belongings
b.	daily work folders	d.	additional references
- _____ 5. The secretary is usually responsible for each of the following except:

a.	deciding proper arrangement of the executive's desk	c.	arranging the secretarial work area
b.	cleaning/dusting the executive's desk	d.	cleaning/dusting cabinets

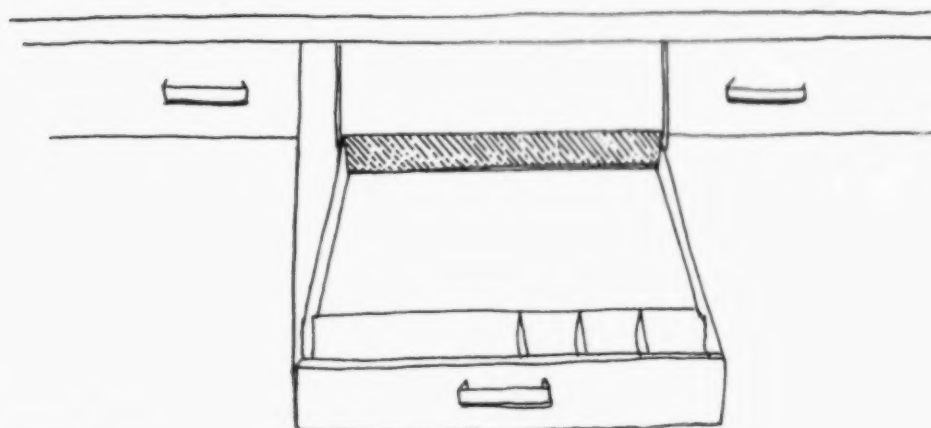
True/False: Place a "T" in the blank preceding each statement if the statement is true; an "F" in the blank if the statement is false.

- _____ 6. A credenza at a secretary's work station enables a secretary to present a neat, uncluttered desk.
- _____ 7. The top of a secretary's desk should never contain personal items such as flowers or photographs.
- _____ 8. Most offices have maintenance personnel to empty wastebaskets and to sweep, thus freeing the secretary from those chores.
- _____ 9. If a secretary spends a great part of the day typing, the desk should be arranged so that the phone is close to the typewriter.
- _____ 10. Left-handed people should place the telephone on the left side of the desk.
- _____ 11. The top drawer of a single-pedestal secretarial desk will usually contain sloping dividers for stationery.
- _____ 12. Projects in progress should be placed in a vertical stand on the desk rather than stacked.
- _____ 13. As a general rule, the secretary's desk top should contain only those items in constant use.
- _____ 14. A drawer with sloping dividers for stationery does not allow room for envelopes, making it necessary to place envelopes in a separate drawer.
- _____ 15. A bottom side drawer of a secretary's desk often allows room for personal belongings, such as facial tissues, purse, and mouthwash.

- 16-20. On the following drawing of a desk top, label five items which are needed for a secretary's desk to allow for efficiency and yet give the appearance of neatness.



- 21-25. In the following center desk drawer, list ten items that should be placed there.



Unit VII - Office Procedures and Organization
Lesson 3 - Organizing the Work Station

POSTTEST KEY

Multiple Choice:

1. b
2. c
3. c
4. a
5. a

True/False:

6. T
7. F
8. T
9. T
10. F
11. T
12. T
13. T
14. F
15. T

- 16-20. The student should draw in and name at least five items from the following list:

- a. typewriter/computer terminal/word processor
- b. telephone
- c. notepad/pencil
- d. rotary file
- e. tickler file
- f. calendar
- g. vertical file
- h. in/out basket
- i. shorthand pad/pen

- 21-25. The student should name at least ten items from the following list:

- | | |
|------------------------|------------------|
| a. pencils/pens | g. date stamp |
| b. paper clips | h. letter opener |
| c. rubber bands | i. scotch tape |
| d. correction supplies | j. shorthand pad |
| e. staple puller | k. note pad |
| f. scissors | |

Unit VII - Office Procedures and Organization
Lesson 4 - Selecting Equipment

LESSON OBJECTIVES

1. Given the task of selecting office equipment, the student will list 10 factors to be considered in choosing office equipment with 90 percent accuracy within 10 minutes.
2. Given the task of preparing a maintenance file regarding equipment, the student will list 5 types of information which should be contained in a maintenance file with 80 percent accuracy within 10 minutes.
3. Given records to maintain on equipment which has been purchased, the student will list 7 factors which should be included in the records with 85 percent accuracy within 10 minutes.

SUGGESTED ACTIVITIES

I. Instructor

- A. Provide objectives, information sheets, and handouts for students.
- B. Ask for possible demonstrations of new equipment in the classroom.
- C. Assign Assignment Sheet. Assignment Sheet 1 indicates that the instructor will provide students with office equipment catalogs and brochures.
- D. Give posttest.

II. Student

- A. Read and discuss objectives and information sheets.
- B. Complete Assignment Sheet.
- C. Take posttest.

INSTRUCTIONAL MATERIALS

I. Objective Sheet

II. Information Sheets

III. Handouts

1. HO 1: Checklist for Selecting Office Equipment
2. HO 2: Worksheet for Evaluating Word Processing Equipment

IV. Assignment Sheet and Answers

- A. AS 1: Selecting Office Equipment

V. Posttest and Key

Unit VII - Office Procedures and Organization
Lesson 4 - Selecting Equipment

INFORMATION SHEET

Equipment is defined as "goods that are used to produce other goods or services but are not themselves used up in the process." Typewriters, computers, calculators, and copiers are examples of equipment.

The first-time or entry-level secretary rarely has to make the decision as to which pieces of equipment are necessary to the operation of an office or as to which brands of equipment to purchase. However, knowledge of basic guidelines will enhance the secretary's ability to answer questions intelligently when asked for opinions or suggestions.

I. Considerations in Selecting Equipment

- A. In a new office or in an already functioning business, one of the best ways to determine equipment needs is to perform a systems study.
 - 1. A systems study identifies the workflow of an office, the volume and type of work produced, the attitudes of the employees toward new technology, and the total cost of new equipment. A systems study will also identify the possible expansion capabilities of new equipment so that equipment and processes will not become easily outdated.
 - 2. This is normally performed by a member of management or by an outside consulting firm.
- B. Because much of today's new office equipment involves the use of software, the availability of software packages, as well as the cost of software becomes another consideration in determining equipment needs.
- C. There are several ways to assist the prospective buyer in selecting equipment.
 - 1. One of the most popular is to attend trade shows and conventions, which usually sponsor an equipment exhibit. The prospective buyer can view equipment first-hand and ask pertinent questions.
 - 2. Another tool for evaluating possible equipment purchases is to visit with someone who already uses a particular brand of equipment.
 - 3. A third popular method for learning about equipment is to read reports in trade journals, equipment magazines, word processing publications, etc.

- D. Once a systems study has been conducted and the type of equipment needed has been determined, the buyer should select a vendor (person or business that sells equipment).
1. Determine the level of equipment available locally. In all likelihood, service will be needed during the installation of equipment or periodically during the life of the equipment. Having a vendor close by would facilitate maintenance and repair of equipment.
 2. Check references of the vendor concerning the reliability and competence of the maintenance personnel.
- E. Check price variances by comparing the total cost of the equipment purchased.
1. Many vendors offer special governmental, educational, and/or volume discounts.
 2. Some vendors charge separately for software, systems design, and installation.
 3. Vendors differ on training of prospective operators of the new equipment. Some offer training for only one or two operators at no cost but charge for additional personnel to be trained; others charge a fee for training any operators. Will the vendor also provide training for management?
 4. How long will the vendor provide training on the new equipment? Will she/he provide orientation in the office? What happens with employee turnover? Will the vendor return to train additional personnel?
- F. Check to see if the vendor is willing to demonstrate the equipment in the user's office with actual applications from the office. This will enable office personnel to see if the equipment meets actual needs.
- G. Evaluate "user friendliness" of the machine. How easy or complicated is it to use?
- H. Determine the expansion capabilities of the equipment.
- I. Consider the reputation of the manufacturer of the equipment. Has the manufacturer been in business a considerable length of time? Is the manufacturer financially stable? Does the company service its products directly, offer service through the vendor, or contract with other companies known as third-party maintenance firms? Many third-party maintenance firms offer toll-free WATS line help and guarantee service within hours.

- J. Will the vendor install the equipment and provide assistance with electrical requirements, space requirements, etc.?
- K. Use a printed checklist to compare possible purchases on paper. Many checklists have a method of assigning point values so that the selection of office equipment (or office furniture) becomes a concrete process. (TM 1 and TM 2)

II. Recordkeeping Procedures for Equipment

- A. Most offices or businesses keep a maintenance file for both equipment and office furniture (office furniture will be discussed in lesson 5).
 - 1. The maintenance file should contain information as follows:
 - a. Information about different types of equipment and office furniture
 - b. Names of manufacturers and supplier of equipment and office furniture; the file should include names of local representatives, addresses, and telephone numbers
 - c. Current catalogs and price lists
 - d. Reference materials and sources of information about standards for safety, construction, and performance
 - e. A checklist or guidelines for selecting office furniture and equipment
 - 2. This maintenance file can be used by those people (or a person) making the final decision on the purchase of equipment. As stated earlier, even though these decisions are typically made by an office manager or by a purchasing department, most firms consult the prospective user of the equipment for input in the decision.
- B. Once a piece of equipment or office furniture is purchased and received, records are kept on the cost, the location, the condition, etc., of the equipment. These records can be kept in book form, in a card file, or in some computer medium and provide an inventory of the business's assets.
 - 1. The following information should be kept on each item of equipment:
 - a. The date the item was purchased
 - b. Name of the vendor

- c. The cost of the equipment (include rental agreement, lease agreement, monthly payments, etc.)
 - d. Description of the equipment including the serial number
 - e. Insurance cost and name of the insurer
 - f. Any service history--dates repairs were made, cost, etc.
 - g. Location of the equipment in the building
 - h. Name of the department (or employee) responsible for the equipment
 - i. Depreciation expense and current book value along with salvage value
2. Many firms also tag each piece of equipment with a small metal tag or a self-sticking label. This tag usually has an identification number that is a code--each section of the number representing type of equipment, department to which it is assigned, etc.

Checklist for Selecting Office Equipment

OPERATION OF EQUIPMENT

- Is the equipment easy to operate?
- Is the equipment easy to maintain?
- Is the equipment easy to learn?
- Is special training needed to operate the equipment?
- Can the equipment be used for different types of work?
- Can the equipment be moved easily from user to user?
- Can the equipment be immediately integrated into the present office system without disrupting the existing system?
- Are the equipment functions logically placed?
- Is the equipment pleasing to the eye?
- Have you given the equipment a trial run?

EQUIPMENT OUTPUT VERSUS EMPLOYEE OUTPUT

- Is the equipment more efficient than the employee?
- Will the equipment provide better service than the employee?
- Will the equipment complete the work more quickly?
- Will the equipment output be of better quality?
- Will the equipment improve accuracy?
- Will the equipment reduce clerical costs?
- Will the equipment handle rush jobs?
- Will the equipment handle peak loads?

EQUIPMENT CAPABILITIES AND LIMITATIONS

- Does the equipment have the desired capabilities? Specify the capabilities of the equipment.
- Does the equipment have limitations, such as storage, size of forms, memory, etc.? Specify the limitations of the equipment.
- Can the equipment interface with other machines in the company?
- Is the equipment loaded with costly extra features that will not be used?
- What will the equipment needs be in five years?
- Will the equipment meet these needs?
- What will the equipment needs be ten years from now?
- Will the equipment meet these needs?
- Will the equipment grow as the needs of the company change?
- Can the machine be upgraded in the field so that it will not have to be traded in on larger, more expensive machinery that may require retraining of company personnel?

COST OF OPERATING EQUIPMENT

- Specify the cost of each of the following items:
 - Operating costs of the equipment (itemize costs)
 - Supplies for use with the equipment (itemize costs)
 - The space occupied by the equipment
 - Repairing the equipment
 - Maintenance of the equipment
 - Special equipment needed in addition to the equipment being considered

Labor for operating the equipment
Supervision necessary for the equipment
Energy for the equipment
Power needed for using the equipment
Training operators in using the equipment
Software for the equipment

PRICING OF EQUIPMENT

How does the net price compare with the net prices of similar equipment? Is it the same, lower, or higher?
How do the operating costs compare with those of other equipment?
How does the depreciation expense compare with that of other equipment?
How does the interest expense compare with that of other office equipment?

EQUIPMENT NEEDS OF THE ORGANIZATION

Will the equipment meet the current needs of the organization?
Specify what this equipment is expected to accomplish.
Will the selected equipment do the work required by the organization?
Will the equipment fit into the present office environment?
Is it possible to standardize equipment throughout the organization?

DURABILITY AND SAFETY STANDARDS

Does the equipment meet the basic requirements for construction set by the Underwriters Laboratories, Inc., and other similar organizations?
Does the equipment meet the basic requirements for performance set by the Underwriters Laboratories, Inc., and other similar organizations?

PROFILE OF MANUFACTURERS AND/OR SUPPLIERS

Is the manufacturer/supplier reliable?
Will the manufacturer/supplier guarantee the equipment?

AVAILABILITY OF SERVICE

Is reliable maintenance service available?
Is immediate service available?

OPINIONS OF EQUIPMENT USERS

Do the operating employees like the equipment?
Do the supervisory employees like the equipment?

OPINIONS OF OTHER USERS

Do users at other organizations (or other departments within the organization) like this equipment?
Have the users used the equipment for six months or more? Specify the length of time.

Worksheet for Evaluating Word Processing Equipment

Vendor _____ Equipment _____			
Scoring: excellent-10, good-8, average-5, poor-2, unacceptable-0			
NOTE: Numbers in parens () indicate maximum possible points			
Evaluation Criteria	Value x Weight = Score		
1. VENDOR FIRM			
1A Financial Organizational Stability		3.5	
1B Quality of Proposal Caliber of Local Staff		1.5	
1C Experience with Similar Applications		1.0	
1D References		1.0	
1E Maintenance/Service		3.0	
1E1 availability (2)			
1E2 response time (2)			
1E3 equipment reliability (3)			
1E4 warranties provided (3)			
Vendor Firm Total Score		_____	
2. EQUIPMENT CHARACTERISTICS			
2A Configuration Flexibility		3.0	
2B CRT Unit		2.0	
2B1 characters per line displayed (3)			
2B2 lines displayed (3)			
2B3 zoom capability (1)			
2B4 reverse image capability (1)			
2B5 brightness/contrast control (2)			
2C Mag Media Employed		2.0	
2C1 tape (1)			
2C2 card (2)			
2C3 floppy disk (3)			
2C4 hard disk (4)			
2D Output Units		2.0	
2D1 carriage widths (1)			
2D2 speeds (1)			
2D3 continuous forms feeder (1)			
2D4 single sheet feeder (1)			
2D5 variable type styles (2)			
2D6 variable pitch (2)			
2D7 print quality (2)			
2E Miscellaneous		1.0	
2E1 communications capability (1)			
2E2 shared logic (2)			
2E3 software based (3)			
dual station input unit (4)			
Equipment Characteristics Total Score		_____	

Source: Association of Information Systems Professionals (AISP), 1015 N. York Road, Willow Grove, PA 19090
(Used with permission.)

Evaluation Criteria		Value × Weight = Score	
3. OPERATING CHARACTERISTICS			
3A Concurrent Input/Output		4.0	
3B Sorting Capability		1.0	
3C Format Capability		2.0	
3C1 forms mode	(1)		
3C2 auto tab memory	(2)		
3C3 automatic underline	(2)		
3C4 automatic centering	(2)		
3C5 automatic margin adjust	(3)		
3D Input/Editing Capability		2.0	
3D1 automatic hyphenation	(1)		
3D2 automatic pagination	(1)		
3D3 glossary feature	(1)		
3D4 horizontal scroll	(1)		
3D5 word wrap around	(3)		
3D6 global search and replace	(3)		
3E Automatic Logging System		1.0	
Operating Characteristics Total Score		_____	
4. TRAINING PROGRAMS			
4A Operator Training Program		3.0	
4B Supervisor Training Program		3.0	
4C Reference Materials Provided		2.0	
4D Supplementary Training Available		1.0	
4E Self-Instruction Program Available		1.0	
Training Programs Total Score		_____	
5. COSTS			
5A Equipment		3.0	
5B Delivery/Installation		1.0	
5C Maintenance		2.5	
5D Mag Media/Supplies		2.5	
5E Training Programs/Reference Materials		1.0	
Costs Total Score		_____	
RATING SCORE			
1. VENDOR FIRM		2.0	
2. EQUIPMENT CHARACTERISTICS		2.0	
3. OPERATING CHARACTERISTICS		2.5	
4. TRAINING PROGRAMS		2.5	
5. COSTS		1.0	
FINAL RATING SCORE		_____	

Source: Association of Information Systems Professionals (AISP), 1015 N. York Road, Willow Grove, PA 19090
(Used with permission.)

Unit VII - Office Procedures and Organization
Lesson 4 - Selecting Equipment

ASSIGNMENT SHEET 1: Selecting Office Equipment

Directions: For this assignment, your instructor will provide office equipment catalogs and brochures. In addition, you may also wish to visit local office equipment suppliers. Your assignment is to select office equipment for a secretarial work station. Include selection of a typewriter and a transcription machine. List five factors you used in your selection of each piece of equipment.

Unit VII - Office Procedures and Organization
Lesson 4 - Selecting Equipment

ANSWERS TO ASSIGNMENT SHEET

Assignment Sheet 1

Student answers will vary, but all answers should show consideration of such factors as vendor training, price, supply availability, vendor installation, ease of operation, appearance, desired capabilities, expansion capabilities, space, operating costs, maintenance, durability, availability of service.

Unit VII - Office Procedures and Organization
Lesson 4 - Selecting Equipment

POSTTEST

1. List seven factors to be considered in choosing office equipment.
2. List four types of information that should be contained in an equipment maintenance file.
3. List seven factors that should be recorded when a piece of equipment is purchased.

Unit VII - Office Procedures and Organization
Lesson 4 - Selecting Equipment

POSTTEST KEY

1. Factors to be considered in choosing office equipment:
 - a. Availability of software packages
 - b. Information gained from visiting trade shows, reading reports, or from contacting current users of equipment
 - c. Level of equipment available through local vendors along with the reliability of vendor's maintenance
 - d. Price variances--discounts available, training services offered, any additional charges for systems design or for installation
 - e. Are demonstrations available in the office?
 - f. "User friendliness" of the equipment
 - g. Expansion capabilities of the equipment
 - h. Reputation of the manufacturer
 - i. Is installation assistance available with electrical requirements, space requirements, etc.?

NOTE: You may also want to consider answers which include:

1. performing a systems study
 2. using a printed checklist
2. A maintenance file should contain:
 - a. General information about different types of equipment
 - b. Names, addresses, and telephone numbers of manufacturers and suppliers of office equipment along with names of sales representatives
 - c. Current catalogs and price lists
 - d. Reference materials and sources of information about standards for safety, construction, and performance
 - e. A checklist or guidelines for selecting equipment

3. Facts to be recorded about each piece of equipment purchased:

- a. Date item was purchased
- b. Name of vendor
- c. Cost of the equipment
- d. Description of equipment including serial number
- e. Name of insurer and cost of insurance
- f. Service history--dates and costs of repairs, etc.
- g. Location of equipment in the building
- h. Name of department or employee responsible for the equipment
- i. Depreciation expense, book value, and salvage value

NOTE: Student may also mention "tagging" equipment.

Unit VII - Office Procedures and Organization
Lesson 5 - Selecting Office Furniture

LESSON OBJECTIVES

1. Given information concerning an office layout, the student will contrast, with 90 percent accuracy within 30 minutes, an open and closed layout and explain how the two plans are often combined.
2. Given requirements regarding the purchase of a desk and chair for a secretary, the student will make the proper selection and type a requisition for the equipment with 90 percent accuracy within 20 minutes.

SUGGESTED ACTIVITIES

- I. Instructor
 - A. Provide objectives and information sheets for students.
 - B. Use current magazines and brochures to point out modern styles in furnishings for the office.
 - C. Assign Assignment Sheet.
 - D. Give posttest.
- II. Student
 - A. Read and discuss objectives and information sheets.
 - B. Complete Assignment Sheet.
 - C. Take posttest.

INSTRUCTIONAL MATERIALS

- I. Objective Sheet
- II. Information Sheets
- III. Transparency Masters
 - A. TM 1: The Office of Yesterday and Today
 - B. TM 2: Office Layouts
 - C. TM 3: Types of Desks
 - D. TM 4: Types of Chairs

IV. Assignment Sheet and Answers

A. AS 1: Selecting the Executive Desk and Chair and Typing a
Requisition

V. Posttest and Key

Unit VII - Office Procedures and Organization
Lesson 5 - Selecting Office Furniture

INFORMATION SHEETS

I. Office Furniture

- A. Office furniture includes the desk (or some type of writing table), the chair, panels (screens or partitions), file cabinets, sofas, coat racks, coffee tables, lamps, and bookshelves. As with office equipment, office furniture has been gradually changing--with a more rapid change in the last few years because of the advancements in both technology and in research concerned with the psychological and physiological needs of office employees. (TM 1)
- B. Because office furniture usually has a long life, it is important that selections be made wisely. Recent studies have also shown that a direct relationship exists between employee productivity and satisfaction with the office environment. In other words, the work environment must be designed according to the needs of the employees and their tasks. The study of the relationship of employees to their physical environment is called **ergonomics**.
- C. In the study of ergonomics or human engineering, many factors other than office furniture are considered. It is also shown that proper lighting, color, office temperature (climate control), acoustics, safety, and physical layout are directly correlated to employee morale and productivity. However, this lesson will deal only with office furniture.
- D. As with office equipment, the selection and purchase of office furniture is usually performed by an office manager or a purchasing department supervisor. However, a basic knowledge of office furniture and some standard requirements will enhance a secretary's ability to be an effective office employee.

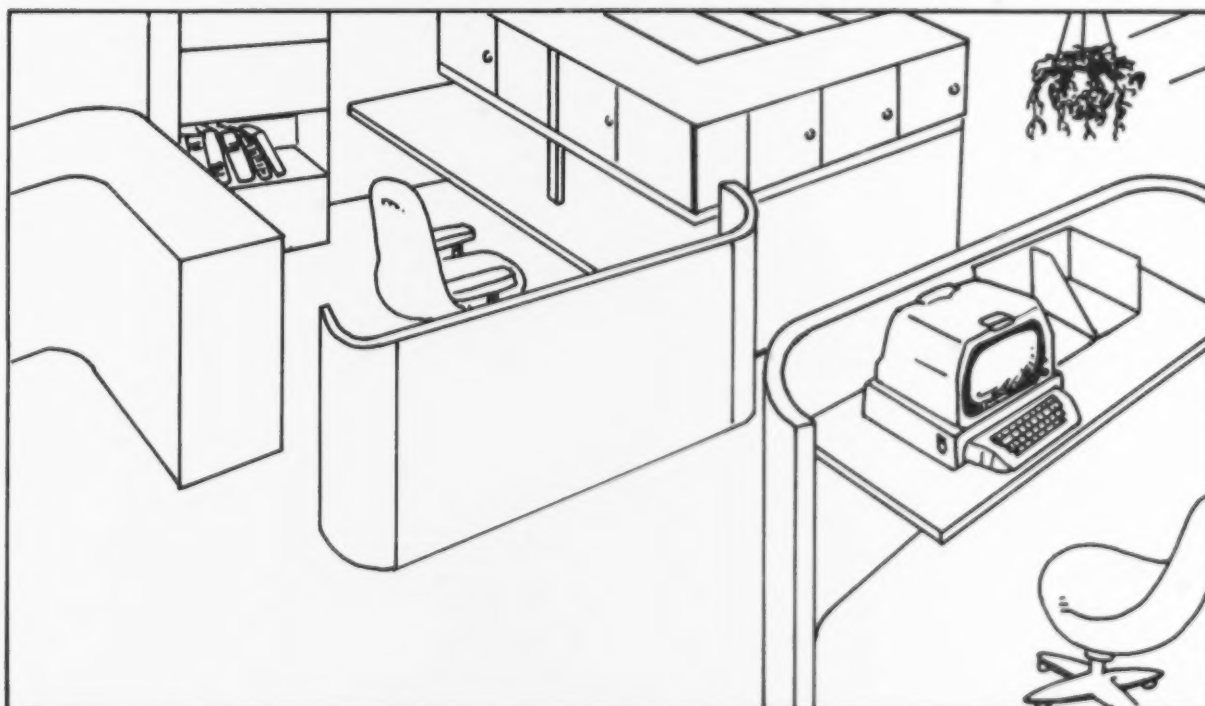
II. Selection of Office Furniture

- A. There are basically two plans of office layout or spatial organization--open and closed.
 - 1. The **closed** or **conventional plan** consists of stationary components. Each office is furnished with a desk, a chair, bookcases, files, and perhaps a credenza. The floor layout usually consists of continuous rows of windowed offices for senior management, smaller interior offices for junior executives, and a "secretarial pool" for support staff.
 - 2. The **open plan** contains furniture of modular components.

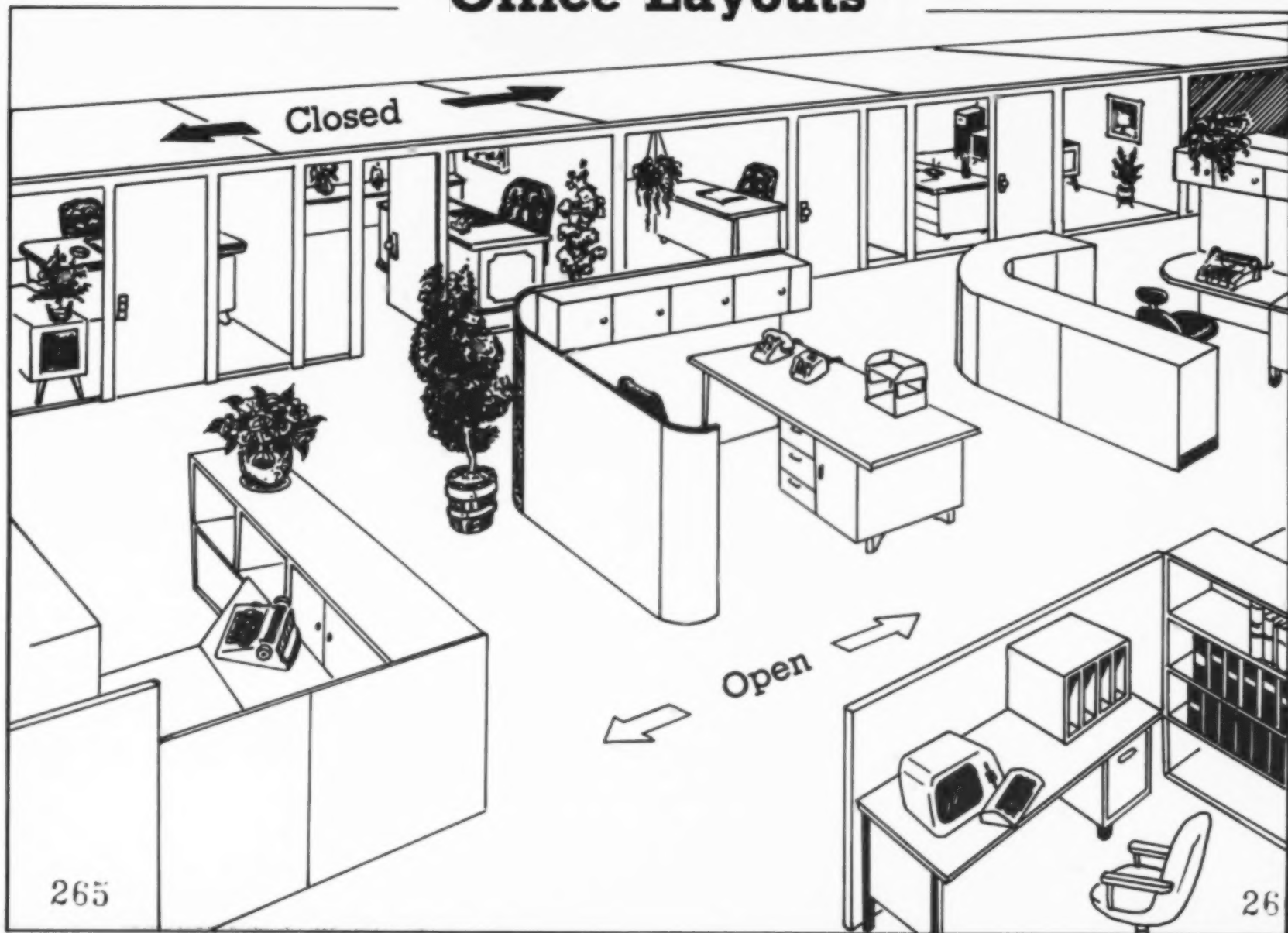
- a. The first approach to open planning was called "office landscaping." With office landscaping, there are no permanent walls, the entire staff intermingles with the floor plan revolving around function rather than order of command. This plan uses clusters of furniture throughout a floor with screens or plants placed to prevent eye contact.
 - b. The current open plan involves a more modular approach with freestanding partitions set up on the floor with components attached to or hanging from the partitions.
 3. Many offices in the United States today use a combination of the two plans. Members of senior management often have private offices with conventional furniture. The rest of the office then employs modular furniture. (TM 2)
- B. Regardless of the spatial plan which an organization uses, certain criteria are common to the selection of all furniture.
1. The furniture should be of standardized design.
 2. It should be of good quality.
 3. It should provide for the user's maximum comfort and efficiency.
 4. Coasters and glides should be oversized for easy use on carpets.
 5. The edges of the furniture should be smooth and round to prevent injury to persons and clothing.
- III. The Office Desk and Chair (The selection of the desk and chair are of primary importance to the health and comfort of the employee.)
- A. A desk's main function is to provide a flat working surface.
1. A standard height desk is 30 inches. However, most desks have screw adjustments, called glides, in their legs for changing the height. Many also have work surfaces that can be lowered easily to enable the user to perform certain work assignments comfortably, such as typing.
 2. The desk surface should be smooth and flat (or slightly slanted for those employees who do a lot of writing).
 - a. Resistant to heat, stain, and scratches
 - b. Easy to clean
 - c. Easy to write on

- B. A desk usually has pedestals containing drawers for storing materials.
1. A desk may have a single pedestal (one side only) or a double pedestal.
 2. Many manufacturers engineer desks so that pedestals may be added, removed, or used on either side.
- C. Desks are usually classified by style, function or modularity. Most often they are classified by function as follows:
1. Desks for **executives** often have built-in dictating equipment, personal file drawers, convenience trays, and footrests. Some executive desks can even have a refrigerator, a television, a personal computer, or an intercommunication system.
 2. Desks for **managers/supervisors** are similar to those for executives only smaller. Usually they do not contain any of the special additions mentioned above.
 3. Desks for **clerks, secretaries, and receptionists** vary according to whether or not a typewriter is used. The typical secretarial desk may have two pedestals or may have one pedestal with a typing return, which results in an L-shaped configuration. The return is on a lower level than the rest of the desk. (TM 3)
- D. Because the typical office employee spends 75 percent of the day sitting, the office chair has become extremely important to the well-being of the office worker.
1. The American National Standards Institute requires three basic adjustments for a chair to be classified as a posture chair.
 - a. The seat should be adjustable in height and depth.
 - b. The chair height should be adjustable to fit the leg length of the user so that the user can sit comfortably with both feet on the floor.
 - c. The chair should provide an adjustable backrest.
 2. The chair may have arm rests.
 3. The chair must be durable and fireproof. The American National Standards Institute through the Business and Institutional Manufacturer's Association (BIFMA) has established testing standards for office chairs for durability and safety. Only office chairs which meet these standards should be chosen. (TM 4)

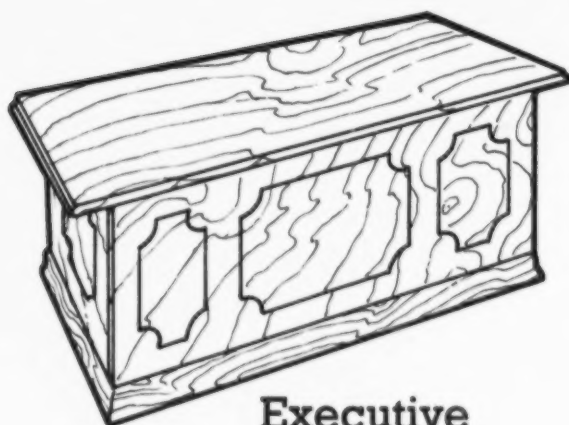
The Office of Yesterday and Today



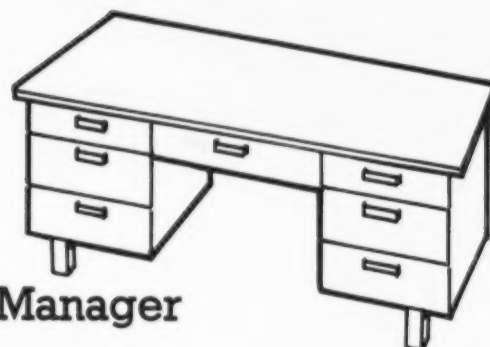
Office Layouts



Types of Desks

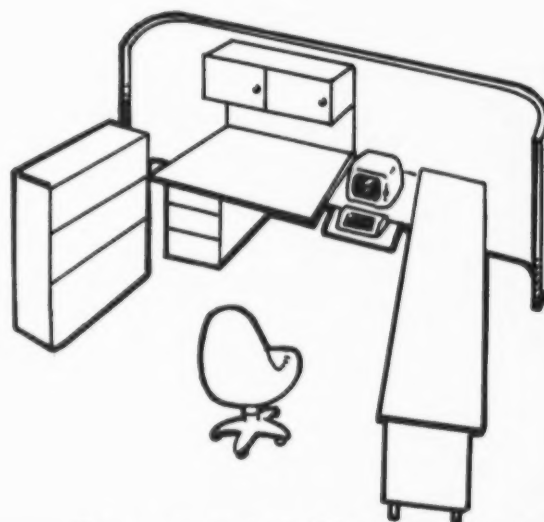
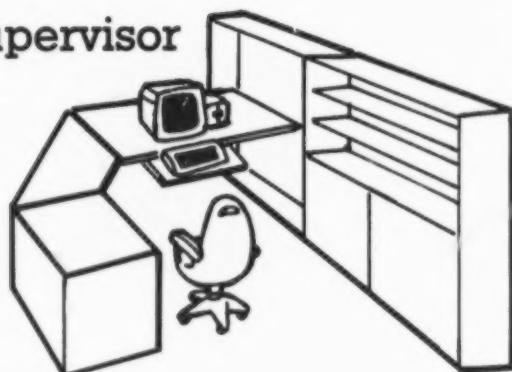


Executive

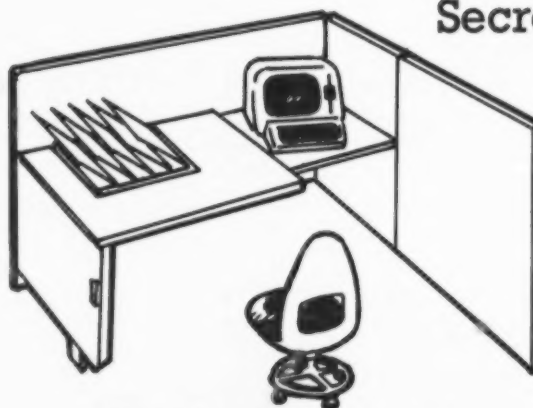


Manager

Supervisor



Secretarial/Professional



Clerical/Support

Types of Chairs



A. An executive might use this chair when processing papers, telephoning, and consulting with others in the work place.



B. An administrative assistant might use this type chair when processing papers, telephoning, and consulting with others in the work place.



C. Secretarial or clerical workers might use this type chair for activities involving typing, calculating, etc.



D. This support work area chair can be used for conference, reception offices, and side chairs.

Unit VII - Office Procedures and Organization
Lesson 5 - Selecting Office Furniture

ASSIGNMENT SHEET 1: Selecting The Executive Desk and Chair and Typing a Requisition

Directions: Assume that your employer has a closed office plan and needs a new desk and chair. Other executives in this building have wooden furniture. Choose the desk and chair which are appropriate and be prepared to justify your answer.

Type a requisition for the items.

Requisition

DATE: _____

TO: GENERAL SERVICES

FROM: _____

(Student's Name)

TELEPHONE NO: _____

DEPT: _____

QUANTITY	MODEL NO:	DESCRIPTION	PRICE
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
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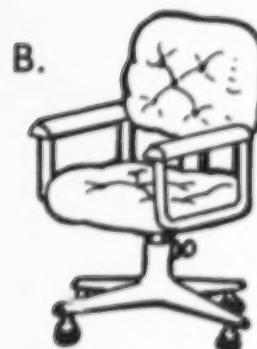
270

TOTAL:

AS 1 (cont.)

Modern and sleek styling for today's executive. All fabric seat and back. Chair adjusts 3¼" up and down. Seat width is 20¾", seat depth is 19". Shipping weight is 57 lbs. Color is brown with walnut finish.

E-4-425-W02-286 each **\$390.00**

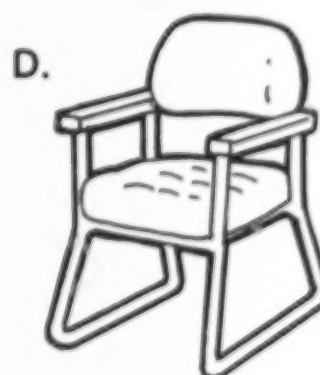
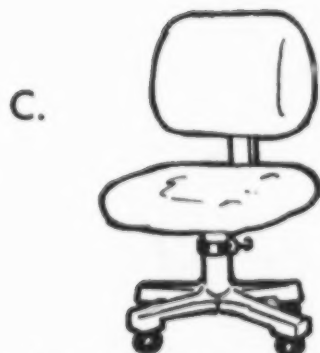


Oatmeal/Walnut Finish

E4-N612-W02-7119 each **\$459.00**

Oatmeal/Oak Finish

E4-N612-O02-7119 each **\$459.00**



Introducing task seating expressly designed for today's systems and computer-oriented office functions. Engineered for comfort and affordably priced. The Z Series has models designed for every staff level and job function. Comfort-engineered adjustability and tailored support surfaces ensure day-long comfort and increased employee productivity. Chairs include 5-leg contemporary slim oval base for extra stability. The E4-Z18 chairs also include dual-action posture control for maximum comfort. Shipping weight is 35 lbs.

Clerical Posture Chair

E4-Z66-PMPMS **\$233.00**

Comfortable chair for guest and conference use. All fabric seat and back. Contoured arm design. Seat is 18" deep x 20½" wide. Shipping weight is 13 lbs.

Oatmeal/Walnut Finish

E4-N618-W02-7119 each **\$343.00**

Oatmeal/Oak Finish

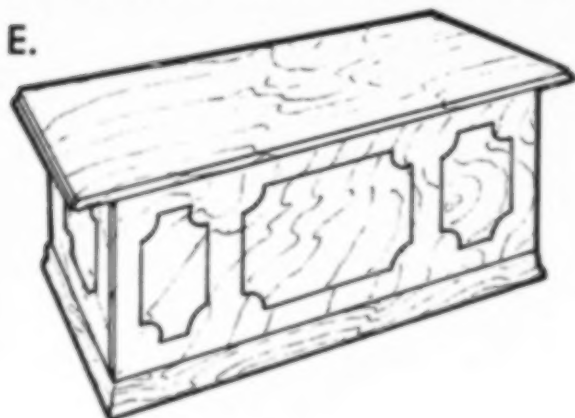
E4-N618-O02-7119 each **\$343.00**

— **Missouri Office Supply Co.** —
3914 Maryland
Columbus, MO 69104
 — **413-976-6100** —

Top: 36" x 72", Chassis: 28 7/16" x 60 1/2".
Overhang in approach side is 6 3/4". Kneespace:
26 5/8". Each pedestal has a box drawer and file
drawer. Legal or letter filing side-to-side. The
center drawer is standard with central locking.

E4-29-3672DP each \$723.00

E.



Top: 30" x 60" with 26" x 59" chassis. 3 1/2"
overhang on approach side. Return has 18" x 40"
top.

Desk for left hand return **E4-25-3060RP**

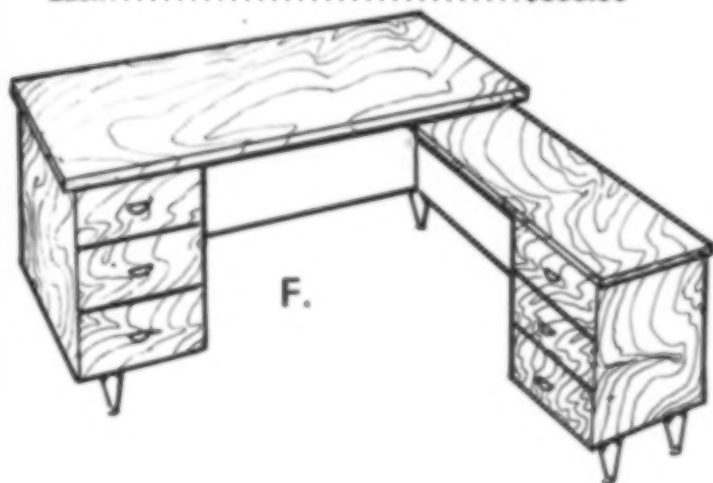
Desk for right hand return **E4-25-3060LP**

Each **\$544.00**

Left return only **E4-25-1840LP**

Right return only **E4-25-1840RP**

Each **\$355.00**



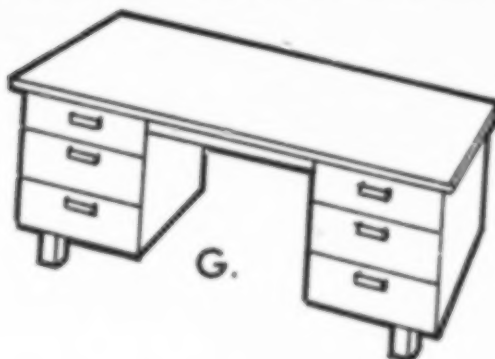
F.

Clean, crisp lines with modern look at an
attractive price. Center drawer locks all drawers.
Full suspension drawer has 24 1/2" of filing space.
60" x 30", self-edged, woodgrained plastic top.
Shipping weight is 185 lbs.

E4-32261-WP Black each \$280.00

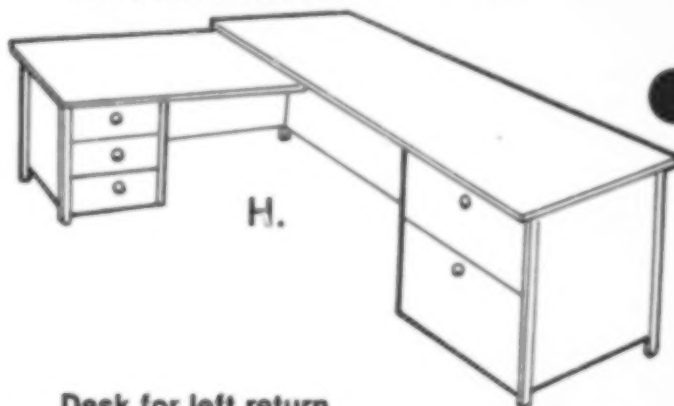
E4-32261-WK Tropic Sand each \$280.00

E4-32261-WB Sandalwood ...each + 280.00



G.

Main desk features a 60" x 30" top. Return has a
40" x 18" top at typing height. The complete work
center includes plenty of easily accessible
storage and filing space. Shipping weight of desk
and return is 200 lbs.



H.

Desk for left return

E4-32271R-WP Black each \$259.00

E4-32271R-WK Tropic Sand ...each \$259.00

E4-32271R-WB Sandalwood ...each \$259.00

Left return

E4-31831L-WP Black each \$153.00

E4-31831L-WK Tropic Sand ...each \$153.00

E4-31831L-WB Sandalwood ...each \$153.00

Desk for right return

E4-32272L-WP Black each \$259.00

E4-32272L-WK Tropic Sand ...each \$259.00

E4-32272L-WB Sandalwood ...each \$259.00

Right return

E4-31830R-WP Black each \$153.00

E4-31830R-WK Tropic Sand ...each \$153.00

E4-31830R-WB Sandalwood ...each \$153.00

— Missouri Office Supply Co. —

3914 Maryland

Columbus, MO 69104

1-813-976-6100

ANSWERS TO ASSIGNMENT SHEET

Requisition

DATE: _____

FROM: _____ (Student's Name)

TELEPHONE NO: _____

DEPT: _____

[illegible]

273

TOTAL: \$1113.00

POSTTEST

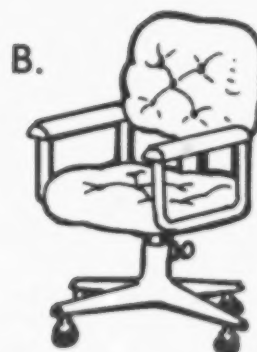
- 315

Modern and sleek styling for today's executive. All fabric seat and back. Chair adjusts 3¾" up and down. Seat width is 20¾", seat depth is 19". Shipping weight is 57 lbs. Color is brown with walnut finish.

E-4-425-W02-286 each \$390.00



Features adjustable height for your personal satisfaction. Chair adjusts 3½" up and down. Seat width is 20½", seat depth is 17¾". All fabric seat and back. Heavy duty spring steel mechanism. Shipping weight is 26 lbs.

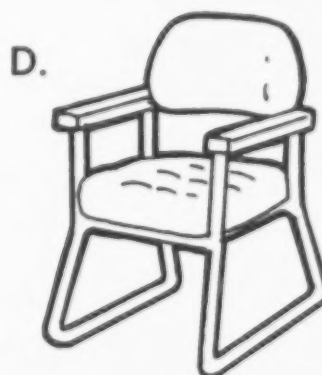
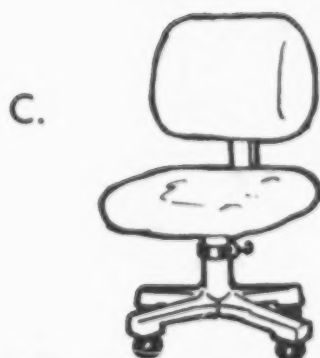


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Oatmeal/Oak Finish

E4-N612-O02-7119 each \$459.00



Introducing task seating expressly designed for today's systems and computer-oriented office functions. Engineered for comfort and affordably priced. The Z Series has models designed for every staff level and job function. Comfort-engineered adjustability and tailored support surfaces ensure day-long comfort and increased employee productivity. Chairs include 5-leg contemporary slim oval base for extra stability. The E4-Z18 chairs also include dual-action posture control for maximum comfort. Shipping weight is 35 lbs.

Clerical Posture Chair

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Comfortable chair for guest and conference use. All fabric seat and back. Contoured arm design. Seat is 18" deep x 20½" wide. Shipping weight is 13 lbs.

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Oatmeal/Oak Finish

E4-N618-O02-7119 each \$343.00

— Missouri Office Supply Co. —

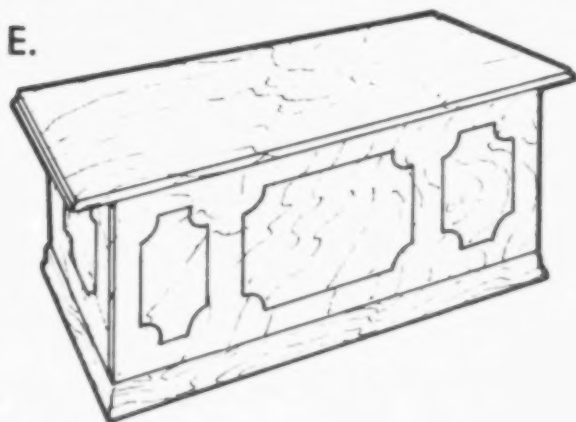
3914 Maryland

Columbus, MO 69104

— 413-976-6100 —

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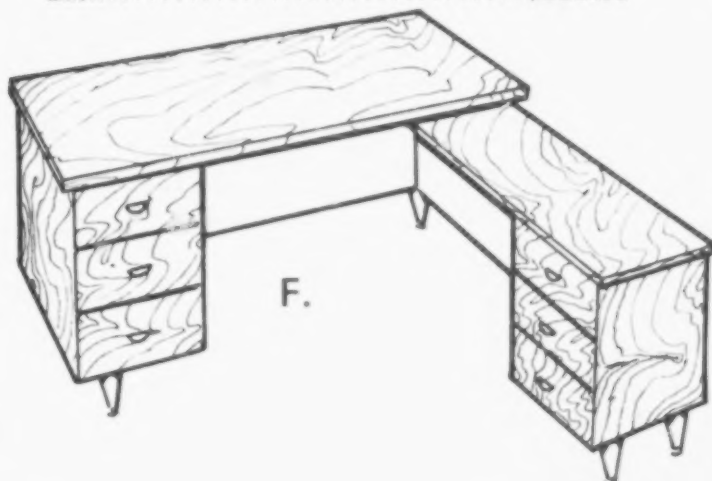
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Each **\$355.00**

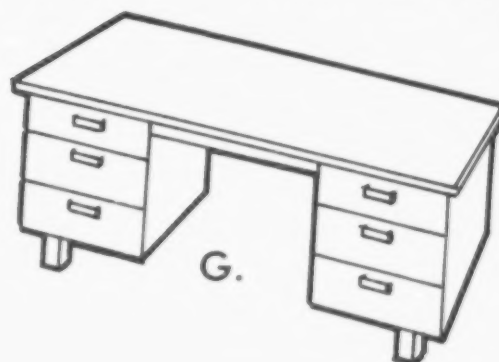
F.



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attractive price. Center drawer locks all drawers.
Full suspension drawer has 24 1/2" of filing space.
60" x 30", self-edged, woodgrained plastic top.
Shipping weight is 185 lbs.

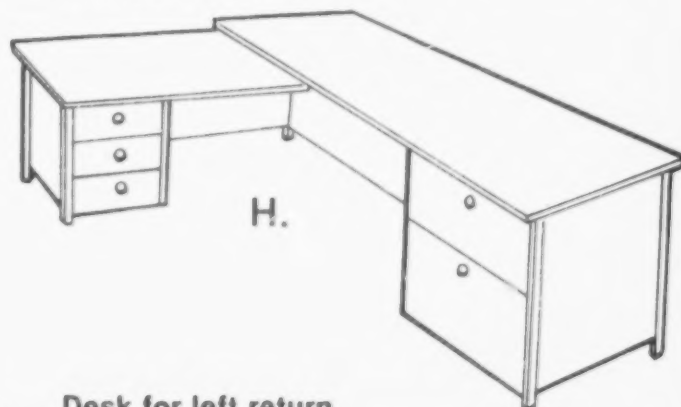
E4-32261-WP Black each **\$280.00**
E4-32261-WK Tropic Sand each **\$280.00**
E4-32261-WB Sandalwood ... each **+ 280.00**

G.



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40" x 18" top at typing height. The complete work
center includes plenty of easily accessible
storage and filing space. Shipping weight of desk
and return is 200 lbs.

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E4-32271R-WB Sandalwood ... each **\$259.00**

Left return

E4-31831L-WP Black each **\$153.00**
E4-31831L-WK Tropic Sand ... each **\$153.00**
E4-31831L-WB Sandalwood ... each **\$153.00**

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E4-32272L-WK Tropic Sand ... each **\$259.00**
E4-32272L-WB Sandalwood ... each **\$259.00**

Right return

E4-31830R-WP Black each **\$153.00**
E4-31830R-WK Tropic Sand ... each **\$153.00**
E4-31830R-WB Sandalwood ... each **\$153.00**

— Missouri Office Supply Co. —
3914 Maryland
Columbus, MO 69104
— 413-976-6100 —

Requisition

DATE: _____

TO: GENERAL SERVICES

FROM: _____ (Student's Name)

TELEPHONE NO: _____

DEPT: _____

[illegible]

TOTAL:

POSTTEST KEY

- The open plan today has freestanding partitions set up on the floor with components (desks, files, etc.) attached to or hanging from the partitions.

In many offices today, the members of senior management often have private offices with conventional furniture (the closed plan) while the rest of the office uses modular furniture (the open plan).

2.

DATE _____

FROM _____ (Student's Name) TELEPHONE NO. _____

DEPT: _____

[illegible]

TOTAL: \$ 1132.00

3. Decide whether to purchase service contracts on the following equipment or to use the per-call arrangement.

Last year's maintenance file on six electronic calculators

	DATE OF CALL	LENGTH OF CALL	HOURLY COST	MILEAGE @ .20 PER MILE
#1	-	-	-	-
#2	10/18	20 min	\$50	24 miles
#3	2/26	65 min	\$50	24 miles
#4	4/16	10 min	\$50	24 miles
#5	-	-	-	-
#6	6/1	35 min	\$50	24 miles

Service contracts on the calculators are \$85 each.

Unit VII - Office Procedures and Organization
Lesson 6 - Purchasing and Maintenance Options

LESSON OBJECTIVES

1. Given the options of renting, leasing, or purchasing office equipment, the student will list, with 80 percent accuracy within 15 minutes, two reasons for using each of the options.
2. Given a formula for determining the break-even point and information regarding the leasing and purchasing of office equipment, the student will determine, with 90 percent accuracy within 15 minutes, whether to lease or purchase equipment.
3. Given an equipment maintenance file on six electronic calculators, the student will determine, with 90 percent accuracy within 20 minutes, whether it is cheaper to have a maintenance contract or to pay the bill when repairs are needed.

SUGGESTED ACTIVITIES

- I. Instructor
 - A. Provide objectives and information sheets for students.
 - B. Assign Assignment Sheets.
 - C. Give posttest.
- II. Student
 - A. Read and discuss objectives and information sheets.
 - B. Complete Assignment Sheets.
 - C. Take posttest.

INSTRUCTIONAL MATERIALS

- I. Objective Sheet
- II. Information Sheets

III. Assignment Sheets and Answers

- A. AS 1: Comparing Leasing/Purchasing by Break-Even Point
- B. AS 2: Determining Maximum Number of Creditable Payments in
LWOP Plan
- C. AS 3: Comparing Per-call Arrangements/Service Contracts

IV. Posttest and Key

Unit VII - Office Procedures and Organization
Lesson 6 - Purchasing and Maintenance Options

INFORMATION SHEET

Both office equipment and office furniture may be rented, leased or purchased. However, since office furniture is expected to last a long time, it is usually purchased. The information that follows pertains mostly to office equipment.

Because there are tax breaks and accounting principles involved, most offices have accounting counsel to aid in deciding whether to rent, lease, or purchase. It is helpful to the secretary to be aware of the advantages and disadvantages of these options.

Whether office equipment is purchased, leased, or rented, repairs are sometimes needed. The methods of covering possible repair costs vary. The efficient secretary is aware of the methods and keeps accurate records to help in making maintenance decisions.

I. Options for Acquiring Equipment

A. Renting

1. Renting is an option which a business can choose:
 - a. When funds are not available
 - b. When the business intends to use the equipment for a short period of time or the business is unsure of whether the equipment will meet its needs
2. Renting does not transfer title of the equipment.
 - a. Equipment cost cannot be used as an investment tax credit when renting
 - b. Rent expense can be used as an ordinary deductible business expense unless a portion of the rent payment will be or is being applied toward the purchase price
3. Because rental agreements are usually for short periods of time (three to six months), they allow the user to change to newer equipment more easily or to upgrade quickly.
4. Renting has a distinct advantage as well as a distinct disadvantage.
 - a. Renting allows equipment to be returned on relatively short notice protecting the user from having to continue to use obsolete equipment or equipment that does not serve the functions of the business properly.

- b. However, once the business stops renting, there is no equipment (assets) to show for the payments--only the rent receipts remain.

B. Leasing

1. The business or user (lessee) may lease office equipment from either the manufacturer (lessor) or vendor (lessor) of office equipment.
 - a. The lessor retains ownership of the equipment at the end of the lease.
 - b. When the lease is between the manufacturer and the business, the manufacturer (lessor) often provides the maintenance.
 - c. As with renting, leasing gives the user the option of finding out whether the equipment serves the proper functions without committing funds to the purchase of the equipment. However, leasing is usually for a longer, specific period of time and is governed by a contract.
2. There are many types of leases. The most common are these:
 - a. A **true lease** is one in which the lessee never intends to purchase the equipment. A true lease is normally used by a business when equipment is needed for a period of time to cover a temporary increase in work load.
 - b. A **lease with the option to purchase (LWOP)** gives the lessee the option to buy the equipment at some point in the future. Usually a portion of the monthly payment can be applied toward the purchase price. A business often uses a LWOP to make sure the equipment serves its needs before purchasing it.
 - c. A **lease with ownership** provides for ownership to pass to the lessee upon the last lease payment. This type of lease avoids initial capital outlay by the lessee and enables the user to utilize its financial resources more effectively. This type of lease is considered to be the same as a conditional sales contract.
3. When the lessee holds a true lease, the lease payments are tax deductible as a business expense; a LWOP is considered to be a conditional sales contract and the payments, therefore, are not deductible. Leasing has advantages, but a distinct disadvantage is the less favorable tax

allowances along with the fact that the total cost of the equipment is more expensive than with purchased equipment.

C. Buying

1. If a user purchases equipment outright, the title of ownership passes immediately from the vendor to the buyer.
2. When a user purchases equipment on credit from a vendor, there are two common forms of credit contracts.
 - a. The conditional sales contract does not allow the buyer to receive title to the equipment until the contract is paid in full. There are no tax advantages here.
 - b. The chattel mortgage contract passes title to the purchaser when the equipment is received. However, the vendor does hold a mortgage claim against the equipment until the amount specified in the contract is paid. Using the chattel mortgage form of contract allows the buyer to take advantage of the Federal investment tax credit provision along with depreciation benefits and any trade or resale value of the equipment.
 - c. Buying equipment has the disadvantage of committing the user to the equipment purchased. However, as learned in Lesson 4, following several guidelines in searching the marketplace and in analyzing needs helps enable a business to make a wise decision in purchasing equipment.

II. Maintenance of Equipment

- A. An important consideration whether renting, leasing, or purchasing equipment is how these machines will be kept in working condition. The life of office machines is affected not only by day-to-day operator maintenance, but by the quality of the maintenance given the equipment when it is not functioning properly.
- B. Equipment maintenance is typically provided by one or more of the following three plans. (Unless a business is extremely small, more than one plan is normally used.)
 1. Service contracts are offered by manufacturers of equipment, by the vendors of equipment, or by independent service agencies. With a service contract, an organization can enter into a contract for the service company to provide service for a one-year period for a specified fee.

a. Advantages of service contracts:

- (1) Preventive maintenance (regular inspection and cleaning) reduces the number of breakdowns as well as prolongs the life of the equipment.
- (2) Lower bookkeeping costs are incurred because only one payment is budgeted and made during the year.
- (3) The service company often answers calls from contract customers before those of others.
- (4) The customer is more likely to call for minor repairs, thus helping to prolong the life of the equipment.

b. Disadvantages of service contracts:

- (1) The cost is often excessive.
- (2) Service contracts usually do not cover repair costs due to the user's negligence.
- (3) Some service contracts do not cover the cost of all replacement parts.

2. **Per-call arrangements** are used most by businesses. With this method, the representative of the equipment manufacturer or service agency is called each time a repair is needed. Unless special provision is made, yearly preventive maintenance (cleaning and inspection) is not made.

a. Advantages:

- (1) Nothing is paid out if the equipment does not break down.
- (2) In a large business, the possibility of several machines needing repair is unlikely and the per-call arrangement can be much less expensive.

b. Disadvantages:

- (1) Bookkeeping costs will be higher because each repair must be requested and then paid for separately.
- (2) A repair call of only a few minutes can be very costly because service companies usually charge a set rate per hour plus mileage.
- (3) A lack of minor repairs and maintenance may limit the life of the equipment.

3. In-house service is used mostly by very large businesses that employ trained servicemen for their own service department.

a. Advantages:

- (1) Because the repair person is within the company, the equipment is repaired promptly.
- (2) The service department takes time to inspect and clean equipment periodically, enabling preventive maintenance on equipment.

b. Disadvantages:

- (1) The costs of salaries and fringe benefits as well as retraining of employees are necessary.
- (2) The company must buy all the parts needed for the equipment and tools to repair the machines.
- (3) The different brands of equipment are normally kept to a minimum; thus, limiting the flexibility.

- C. An organization should compare options before deciding which plan to use.

1. New equipment often has a warranty period, making a maintenance contract unnecessary.
2. Records should be kept on each piece of equipment, showing any repairs made and costs of repair.
3. A piece of equipment needing frequent repairs might warrant a service contract, where other pieces of equipment in the same office could be put on a per-call basis.

Unit VII - Office Procedures and Organization
Lesson 6 - Purchasing and Maintenance Options

ASSIGNMENT SHEET 1: Comparing Leasing/Purchasing by Break-Even Point

Sometimes a business uses a quick way to compare purchasing with renting or with a true lease plan. The purchasing break-even point versus renting/leasing is determined by dividing the purchase cost by the monthly lease cost. The answer is the number of months needed to break even.

As an example, if the equipment costs \$1,000 and the lease costs \$100 a month, the break-even point is 10 months:

$$\frac{\$1,000}{\$100} \quad \begin{array}{l} \text{(equipment cost)} \\ \text{(monthly lease cost)} \end{array} = 10 \text{ months}$$

In this case, if the equipment is to be used more than 10 months, it should be purchased rather than leased.

Answer the following questions:

1. The XYZ Company can purchase a piece of equipment for \$2,000 or pay \$150 a month to lease it. The company needs the equipment to help during a peak season anticipated to last six months.
 - a. What is the break-even point?
 - b. Should the company lease or purchase the equipment? Why?

Unit VII - Office Procedures and Organization
Lesson 6 - Purchasing and Maintenance Options

**ASSIGNMENT SHEET 2: Determining Maximum Number of Creditable Payments in
LNOP Plan**

When using a lease with the option to purchase plan, a company needs to calculate the maximum number of lease payments that will include some portion that can be credited toward the purchase of the equipment. The company may wish to avoid making payments beyond this point and will need to decide whether to purchase the equipment or to discontinue leasing it. As an example, the \$1,000 item in Assignment Sheet 1 was being leased at a monthly lease cost of \$100. The contract stipulates that 50 percent of each lease payment can be credited toward the purchase, up to a maximum of 75 percent of the purchase price.

To calculate the maximum number of payments that contain a portion that can be credited toward the purchase price:

Take the purchase price (\$1,000) times the maximum percentage that can be credited toward the purchase price (75 percent). Divide this by the monthly payment (\$100) times the percentage of each payment that can be applied toward the purchase price (50 percent).

$$\frac{\$1,000 \times 75\%}{\$100 \times 50\%} = 15 \text{ months}$$

Thus, the first 15 payments of \$100 will provide \$50 toward the purchase of the machine. A maximum of 75% of the purchase price can be obtained from these lease payments. After that, no portion of the payments is credited toward the purchase price.

Compute the maximum number of payments that will contain a portion toward purchase in the following situation:

Purchase price of the equipment	\$2,000
Monthly lease payments	120
Percent of monthly payment that can be applied to purchase price	50%
Maximum percent of total purchase price that can be paid through lease payments	60%

What is the maximum number of monthly payments that contain credit to be applied to the purchase price?

Unit VII - Office Procedures and Organization
Lesson 6 - Purchasing and Maintenance Options

ASSIGNMENT SHEET 3: Comparing Per-call Arrangements/Service Contracts

Suppose XYZ Company has four typewriters that were serviced on a per-call basis the past year. Records on the typewriters indicate the following:

Typewriter #1 had 2 service calls as follows:

3/22 75 minutes @ \$48 an hr. mileage 15 miles @ .20 per mile

11/14 50 minutes @ \$48 an hr. mileage 15 miles @ .20 per mile

Typewriter #2 had no service calls

Typewriter #3 had 1 service call as follows:

10/1 10 minutes @ \$48 an hr. mileage 15 miles @ .20 per mile

Typewriter #4 had 1 service call as follows:

5/4 30 minutes @ \$48 an hr. mileage 15 miles @ .20 per mile

Each service call resulted in a minimum charge of one hour, but additional time is figured proportionally. The typewriters were cleaned and inspected at the end of the year at a cost of \$20 each. The typewriters are three years old.

Would it be best to continue on a per-call service plan for the coming year or to purchase service contracts at \$100 per typewriter? (The service contracts contain preventive maintenance as well as coverage of new parts.) Explain your answer.

Unit VII - Office Procedures and Organization
Lesson 6 - Purchasing and Maintenance Options

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet 1

- a. 13 months
- b. lease, because the peak season lasts only 6 months and the break-even point is twice as long

Assignment Sheet 2

20

Assignment Sheet 3

There really is no obvious answer to this problem. Whatever the student's choice, encourage the student to state the reasons for his/her choice.

- 1. One choice might be to put typewriter #1 on a service contract since it seems to break down more often and the repairs on it were over \$100.
- 2. A second choice might be to put them all under service contract. The total service contracts would be \$400. The total spent on the per-call basis the past year was \$332. Since the typewriters are not new, they might break down even more in the coming year. An additional \$68 might seem safe. The bookkeeping expense would be less because requests were filled out five times in previous years and payment was made on five different occasions.
- 3. A third choice might be to go with the per-call plan. The typewriters should be in good working order now since three of them were worked on the previous year and all of them were cleaned and inspected at the end of the year.

Unit VII - Office Procedures and Organization
Lesson 6 - Purchasing and Maintenance Options

POSTTEST

1. List two reasons for each:

Renting

a.

b.

Leasing

a.

b.

Purchasing

a.

b.

2. Determine whether to lease or purchase the following equipment using the break-even point.

You can purchase needed data processing equipment for \$28,000 or lease it for \$1,600 per month. You will need the equipment for a minimum of 20 months. After determining the break-even point, would you purchase or lease the equipment?

3. Decide whether to purchase service contracts on the following equipment or to use the per-call arrangement.

Last year's maintenance file on six electronic calculators

	DATE OF CALL	LENGTH OF CALL	HOURLY COST	MILEAGE @ .20 PER MILE
#1	-	-	-	-
#2	10/18	20 min	\$50	24 miles
#3	2/26	65 min	\$50	24 miles
#4	4/16	10 min	\$50	24 miles
#5	-	-	-	-
#6	6/1	35 min	\$50	24 miles

Service contracts on the calculators are \$85 each.

Unit VII - Office Procedures and Organization
Lesson 6 - Purchasing and Maintenance Options

POSTTEST KEY

1.

Renting:

- a. Funds are not available.
- b. Intended equipment use is for a short period of time.
- c. Use when possibility exists that equipment needs to be frequently upgraded.

Leasing:

- a. Lessor sometimes covers maintenance costs.
- b. Lessee has opportunity to find out whether equipment meets needs.
- c. LWOP allows lessee to use equipment for a short period of time and yet receive credit for part of the payments.
- d. A lease with ownership allows lessee to purchase equipment without initial capital outlay.

Purchasing:

- a. The business has equipment to show for the funds paid out.
 - b. The business can take advantage of tax credit provisions along with depreciation expense.
 - c. There is a trade-in value or salvage value when the business decides to change equipment.
2. The break-even point is 17 1/2 months. If possible, it would be better to purchase the equipment since it is needed for a minimum of 20 months.
3. Maintenance costs totaled \$269.20. Service contracts would equal \$510. Based on past year's experience, it would be better to stay with per-call plan.

Unit VII - Office Procedures and Organization
Lesson 7 - Knowing the Office Structure

LESSON OBJECTIVES

1. Given the options of working in a public or private enterprise, the student will list an advantage and disadvantage of working for each with 100 percent accuracy within 15 minutes.
2. Given the options of working in a sole proprietorship, partnership, or corporation, the student will list an advantage and a disadvantage for each with 80 percent accuracy within 15 minutes.
3. Given the tasks of writing an employee's manual and keeping a desk manual, the student will list those items which should be contained in each with 90 percent accuracy within 20 minutes.

SUGGESTED ACTIVITIES

I. Instructor

- A. Provide objectives, information sheets, and handouts for students.
- B. This lesson presents a good opportunity to discuss advantages and disadvantages of different types and sizes of businesses. Now might be a good time to visit area businesses or to have guest speakers.
- C. Basic Civil Service Training by South-Western Publishing Co., could be used as a reference to alert the student of those skills necessary for passing the Civil Service Exam.
- D. Assign Assignment Sheets.
- E. Give posttest.

II. Student

- A. Read and discuss objectives and information sheets.
- B. Complete Assignment Sheets.
- C. Take posttest.

INSTRUCTIONAL MATERIALS

I. Objective Sheet

II. Information Sheets

III. Handouts

- A. HO 1: Employee Manual--Sample Table of Contents
- B. HO 2: Items in a Desk Manual
- C. HO 3: Sample Page of an Employee Manual

IV. Assignment Sheets and Answers

- A. AS 1: Choosing Between a Public and a Private Enterprise
- B. AS 2: Choosing to Work in a Sole Proprietorship, a Partnership, or a Corporation

V. Posttest and Key

Unit VII - Office Procedures and Organization
Lesson 7 - Knowing the Office Structure

INFORMATION SHEET

Whether the business is large or small, public or private, offers a service or sells goods, an office position within the enterprise offers its own unique advantages and disadvantages. An employee in an office will be guided by a manager or supervisor who has designated responsibilities. In most offices, there is also an office manual to provide company information for the office employee.

I. Public or Private Enterprise

- A. Public organizations are supported by tax dollars. Because these tax funds can increase or decrease, public institutions must operate within fixed budget limitations.
- B. Examples of public institutions include hospitals, schools, and museums, as well as city, county, state, or federal government agencies.
 - 1. In addition to the typical fringe benefits like insurance plans and retirement, public institutions sometimes offer other unique services.
 - a. Employees of higher education institutions often have the opportunity to attend classes during the working hours with partially paid or free tuition.
 - b. Employees of medical institutions often have reduced medical costs.
 - c. Federal, state, and community government agencies provide opportunities for involvement in the political process. Many federal, state, and local government agencies offer workers more holidays than do private companies.
 - d. State and federal agencies often require employees to pass a state merit or civil service examination. Scores on these examinations give the employee a rating, and raises often occur automatically after a probationary period along with salary increases at regular intervals.
 - e. Working with public institutions allows the office employee to meet many people and work with the public.
 - 2. Along with advantages also appear these disadvantages:

- a. Because these public institutions are supported with tax funds, agencies must answer to the public for their expenditures, money for supplies, furniture, and salary increases.
 - b. Public agencies usually have no control over the amount of money within their budgets because the budgets are established by the state legislature or other governmental bodies.
 - c. Passing state or federal civil service examinations for the position desired may be difficult.
 - d. In many instances, the office employee is working with members of the public who are upset, distraught, or require time-consuming aid. Much tact is needed to remain pleasant and helpful.
- C. Private enterprises are those nonpublic companies that are in business for the purpose of making a profit. These companies are run by people who are either sole proprietors, partners, or corporate executives.
- 1. Working in private enterprise offers advantages.
 - a. Fringe benefit packages can often include profit sharing options. Many businesses, corporations especially, offer their employees the benefit of sharing in profits by first investing a percentage of employee salaries.
 - b. The reward of feeling a part of the organization and working toward a common goal with management to increase profits and enlarge the business expands the opportunities for the office employee.
 - 2. Disadvantages in private enterprise:
 - a. Being subject to receiving no salary increases if the profit margin does not allow for increased salaries
 - b. The possibility of losing a job because the business fails or is involved in employee cutbacks

II. Sole Proprietorships, Partnerships, or Corporations

- A. A business is a sole proprietorship if one person owns the business.
 - 1. Retail businesses are the most common sole proprietorships.
 - 2. Opportunities for office jobs in a sole proprietorship are often limited because the total number of jobs is few.

- a. An office job in a sole proprietorship offers the advantage of a job in which all realms of office skills are needed--answering the telephone, filing, typing, bookkeeping, etc.
 - b. This same advantage can become a disadvantage if the business is small enough that in addition to the office duties, the employee might be required to act as a part-time salesperson or even stock shelves, or sweep the floor. Plus, an office employee in a small sole proprietorship does not usually have the option of advancement.
- B. Partnerships exist when two or more people own a business. Often medical offices, lawyers offices, insurance agencies, real estate agencies or small manufacturing companies are partnerships. Partners share profits or losses and share in decision making.
 - 1. An office employee in a partnership often has the same type of job as one in a sole proprietorship unless the partnership expands significantly. Positions in these types of businesses allow the secretary to use a wide range of skills.
 - 2. As with a sole proprietorship, a position in a partnership will afford the secretary the opportunity to learn a diversity of operations and will allow lateral moves but offers little opportunity to move upward. And, because partners do not always agree on how to spend money or whom to hire or fire, employees are often caught in the middle or left in an unstable position.
- C. Large organizations often form corporations. A corporation is owned by people who own shares in the business--stockholders. A corporation must have a charter which lists a president, vice-president, secretary, and treasurer. Companies often begin as sole proprietorships or partnerships and then expand to corporate size.
 - 1. Office work in large corporations is usually more specialized than in sole proprietorships, partnerships, or small corporations. Large corporations also offer the advantage of opportunities for advancement.
 - 2. Because of the vastness of many corporations, however, it is also easy to get lost in the shuffle. New employees must start at the bottom and work their way up. To do so, though, requires that the employee be skilled, stay on top of innovations in his/her field, and be assertive in looking for opportunities for advancement.

3. Office positions in corporations often have specific job descriptions. Also, an office worker will have one or more office manuals detailing policies and procedures to be followed.

III. Office Manuals (HO 1, HO 2, HO 3)

- A. One or more of several types of manuals may be found in organizations.
 1. Policy manuals provide a written record of the policies followed by an organization.
 2. Procedures manuals outline procedures for performing various duties.
 3. Company manuals provide historical information about the company, information about the products manufactured or services provided, information about the functions of each of the departments or divisions, and/or an organizational chart showing the managerial hierarchy of the company.
 4. Employee manuals are often distributed to employees at the time employment begins and usually contain a composite of pertinent sections of other manuals as well as information that does not appear elsewhere. Information that does not appear elsewhere might include promotion policies, salary increase policies, and policies regarding layoffs, overtime, sick days, fringe benefits and organization activities or associations for employees.
 5. Functional manuals are quite specialized and contain specific information about one function in the organization. An example might be a detailed typing manual showing specifically how to type certain forms, letters, etc., or a manual containing filing rules for the organization.
 6. Desk manuals are not official publications of the company but rather documents developed by an employee showing specific procedures for a particular position.
- B. The development of manuals differs from organization to organization, but the reasons for having manuals organized and published are common among companies.
 1. Policy manuals
 - a. The development of a policy manual is important because all organizations have policies pertinent to their organization.

- b. When the policies are in writing, they are more likely to be understood by the employees who are more likely to be treated in a consistent manner.
 - c. The employees do not have to take the manager's or supervisor's time to learn about routine policies of the organization.
- 2. Procedures manuals
 - a. Appropriate procedures are shown for completing work processes making it easy for a new employee to follow the steps required.
 - b. Completing work processes in a certain order is often necessary so that each division or department can function properly and efficiently.
 - c. Functional manuals are often necessary for the same reason.
- 3. Manuals often provide historical information about a company or its products and furnish prospective employees or customers with reference material about a company.
- 4. Employee manuals vary widely from organization to organization, but many companies consider their employee manual a "contract" between the employee and the company since terms of employment are usually outlined in the manual.
- 5. Manuals are usually helpful when a temporary employee is hired in someone's absence. Desk manuals are especially helpful in this type of situation because they may contain particular instructions and style guidelines along with pertinent names and addresses for correspondence or copies of form letters used by the employee's supervisor.

EMPLOYEE MANUAL
X Y Z CORPORATION

Table of Contents (Sample)

Welcome Message	1
History of the Company	2
Employment Practices	
Reporting to Work	4
Working Hours	4
Breaks	5
Absence from Work	5
Employment Record	5
Evaluations	6
Promotions	6
Pay Period	7
Use of Telephone	8
Grievance Procedures	8
Company Benefits	
Vacations	9
Holidays	9
Group Insurance	10
Hospitalization and Dental Plans	10
Training Program	11
Savings Plan	12
Profit-Sharing Plan	12
Jury Duty	13
Military Leave	13
Unemployment Compensation	13
Equal Employment Opportunity	14
Special Services	
Credit Union	15
Education Plans	15
Medical Dispensary	16
Company Cafeteria	16
Monthly Magazine	16
Bowling League	16

ITEMS IN A DESK MANUAL

Because a desk manual should be revised as procedures in a particular position change, it is wise to use a loose-leaf notebook so that information can be removed or added easily. The following list contains ideas of the types of materials to be found in a desk manual in order to give a complete and clear picture of the work performed.

1. Daily breakdown of duties performed
2. Special duties--those that come at stated intervals
3. Samples of forms--how to fill them in, number of copies to be made, when to fill them in, to whom to send them, where to file or keep them, why they are used, etc.
4. Any special terminology used on the job
5. Key to the filing system used in this particular office--how it is done and who does it; who has access to the files; when and how the materials are actually filed; when and how they are charged out, etc.
6. Who's who--in this department office; in the company or organization; in suppliers', dealers' or customers' firms
7. Lines of authority
8. Samples of letter styles and notes about stationery used; number of carbons to be made
9. Collection and delivery time of the mail
10. Telephone--how to answer; long distance charges; etc.
11. How to fill in travel vouchers
12. Machines and equipment in the office--how to maintain; repairmen's telephone numbers; etc.
13. Supplies--who reorders; where they are kept; etc.

SAMPLE PAGE OF AN EMPLOYEE MANUAL

Employment Practices

Work Hours: The work day begins at 7:45 a.m. and ends at 4:45 p.m., Monday through Friday. Breaks may be taken for 15 minutes each morning and each afternoon. The lunch hour lasts for one hour; it is preferred that lunch be taken from 12 p.m. to 1 p.m. unless your supervisor indicates otherwise.

Classification: The classification of the job you hold determines your salary rate. The higher the classification, the higher the salary earned.

Evaluation: You will be evaluated by your employer at the end of the first three months of employment. If your work and attitude are satisfactory, the supervisor will recommend continued employment. If your performance is less than satisfactory, the supervisor will either recommend that you be discharged or that you be given another chance to improve. Other evaluations will take place after you have been employed for six months and for one year. Yearly evaluation will occur thereafter.

Promotions: Your performance is a basic guide in determining how rapidly you are promoted. You will be considered for promotion as soon as your supervisor feels that you are qualified for a promotion.

Salary Increases: As long as your performance remains satisfactory and the financial status of the company remains stable, you may expect to receive a yearly salary increase. Higher performance means greater salary increases.

Selection: The XYZ Corporation is an equal opportunity employer.

Employment Policies

Absenteeism: The employee will not be paid for unexcused absenteeism. At the time an employee accumulates a total of five days of unexcused absences, the employee will be subject to dismissal.

Tardiness: An accumulation of three days' tardiness (over 10 minutes late) will be treated as one unexcused absence. Employees are encouraged to remember that tardiness has a negative effect on performance evaluations.

Unit VII - Office Procedures and Organization
Lesson 7 - Knowing the Office Structure

ASSIGNMENT SHEET 1: Choosing Between a Public and a Private Enterprise

Directions: Read each of the following cases. Then list advantages and disadvantages of each position.

1. Linda works as a secretary in the business office of a large public library owned by the state government. Her duties include operation of the monthly payroll, completion of purchase vouchers, and inventory control. List three advantages and three disadvantages of Linda's job in this public enterprise.

2. Kathy works as a word processor for a large, private-owned financial company. Her duties include production of correspondence and financial forms. List two advantages and two disadvantages of Kathy's job in this private enterprise.

Unit VII - Office Procedures and Organization
Lesson 7 - Knowing the Office Structure

ASSIGNMENT SHEET 2: Choosing to Work in a Sole Proprietorship, a Partnership, or a Corporation

Directions: Define each of the following terms. Then list one advantage and one disadvantage of working in each type of business.

1. A sole proprietorship is _____

Advantage: _____
Disadvantage: _____
2. A partnership is _____

Advantage: _____
Disadvantage: _____
3. A corporation is _____

Advantage: _____
Disadvantage: _____

Unit VII - Office Procedures and Organization
Lesson 7 - Knowing the Office Structure

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet 1

1. Advantages of Linda's job could include:

- a. rating by state merit or civil service exam
- b. salary increases at regular intervals
- c. working with the public
- d. increased number of holidays

Disadvantages of Linda's job could include:

- a. public accountability for funds
- b. limited public funds available for equipment and salary
- c. required to take the civil service/merit exam
- d. public may be difficult to work with

2. Advantages to Kathy's job could include:

- a. profit-sharing
- b. fringe-benefit packages
- c. increased fund potential due to profits
- d. increased advancement potential due to business expansion

Disadvantages of Kathy's job could include:

- a. reduced salary if profits are poor
- b. reduced job security due to business failure

Assignment Sheet 2

1. Sole proprietorship is a business owned by one person.

Advantage: A diversity of skills is needed; or, many opportunities in retail firms

Disadvantage: Office staff may have to perform janitorial or sales duties; or, jobs may be difficult to find; or, little room for advancement

2. A partnership is a business owned by two or more persons who share profits or losses and share in decision making.

Advantage: A diversity of skills is needed; or, greater room for advancement than a sole proprietorship

Disadvantage: Not a great deal of advancement potential; or, employee may become involved in partners' disagreements; or, job security is less than with a corporation due to partners' disagreements

3. A corporation is a business chartered by the government and owned by stockholders.

Advantage: Large potential for advancement; or, specialized assignment of duties; or, accessibility of office manuals as aid to clerical worker

Disadvantage: Employee must be up to date and assertive to advance in such a large organization; or, work may become uninteresting due to specialization

Lesson 7 - Knowing the Office Structure

POSTTEST

2. List one advantage and one disadvantage for working in a sole proprietorship, a partnership, and a corporation.

3. The XYZ Corporation began eight years ago with six employees. The company manufactures computer printers. Because of the popularity of these products, the company has grown rapidly. Since many of the top managers of the firm have an electronics rather than a business background, several managerial activities have been overlooked, including the development and use of manuals. To illustrate, the company continually adds new employees; however, there is no employee manual and as each new person is hired, she/he must learn about company practices from other personnel. None of the office employees have been informed about desk manuals and their usefulness to new workers and temporary employees.

a. List at least 10 items that should be contained in an employee manual.

b. List at least 10 items that an efficient secretarial/clerical worker will provide in a desk manual.

Unit VII - Office Procedures and Organization
Lesson 7 - Knowing the Office Structure

POSTTEST KEY

1. The student needs to list one of the following advantages and disadvantages in each category below.

Advantages of Public Enterprise:

- a. Employees of higher education institutions often have the opportunity to attend classes during the working hours with partially paid or free tuition.
- b. Employees of medical institutions often have reduced medical costs.
- c. Federal, state, and community government agencies offer opportunities for involvement in the political process. Many federal, state, and local government agencies offer workers more holidays than do private companies.
- d. State and federal agencies often require employees to pass a state merit or civil service examination. Scores on these examinations give the employee a rating, and raises often occur automatically after a probationary period along with salary increases at regular intervals.
- e. Working with public institutions allows the office employee to meet many people and work with the public.

Disadvantages of Public Enterprise:

- a. Because these public institutions are supported with tax funds, agencies must answer to the public for their expenditures, money for supplies, furniture, and salary increases.
- b. Public agencies usually have no control over the amount of money within their budgets because the budgets are established by the state legislature or other government body.
- c. Passing state or federal civil service examinations for the position desired may be difficult.
- d. In many instances, the office employee is working with members of the public who are upset, distraught, or require time-consuming aid. Much tact is needed to remain pleasant and helpful.

Advantages of Private Enterprise:

- a. Fringe-benefit packages often include profit sharing options. Many businesses, corporations especially, offer their employees the benefit of sharing in profits by first investing a percentage of employee salaries.
- b. The reward of feeling a part of the organization and working toward a common goal with management to increase profits and expand the business expands the opportunities for the office employee.

Disadvantages of Private Enterprise:

- a. Being subject to receiving no salary increases if the profit margin does not allow for increased salaries
- b. The possibility of losing a job because the business fails or is involved in employee cutbacks

2. Answers should include at least one advantage and one disadvantage from each of the following lists.

Advantages and Disadvantages of Sole Proprietorship:

- a. An office job in a sole proprietorship offers the advantage of a job in which all realms of office skills are needed--answering the telephone, filing, typing, bookkeeping, etc.
- b. This same advantage can become a disadvantage if the business is small enough that in addition to the office duties, the employee might be required to act as a part-time salesperson or stock shelves or sweep the floor. Plus, an office employee in a small sole proprietorship does not usually have the opportunity for advancement.

Advantages and Disadvantages of Partnership:

- a. An office employee in a partnership often has the same type of job as one in a sole proprietorship unless the partnership expands significantly. Positions in these types of businesses allow the secretary to use a wide range of skills.
- b. As with a sole proprietorship, a position in a partnership will afford the secretary the opportunity to learn a diversity of operations and will allow lateral moves, but offers little opportunity to move

upward. And, because partners do not always agree on how to spend money or whom to hire or fire, employees are often caught in the middle or left in an unstable position.

Advantages and Disadvantages of Corporations:

- a. Office work in large corporations is usually more specialized than in sole proprietorships, partnerships, or small corporations. Large corporations also offer the advantage of opportunities for advancement.
 - b. Because of the vastness of many corporations, it is easy to get lost in the shuffle. New employees must start at the bottom and work their way up. To do so, though, requires that the employee be skilled, stay on top of innovations in his/her field, and be assertive in looking for opportunities for advancement.
 - c. Office positions in corporations often have specific job descriptions. Also, an office worker will have one or more office manuals detailing policies and procedures to be followed.
3. a. Answers should include at least 10 of the following, as well as items listed in HO 1.
- b. Answers should include at least 10 of the following:
- (1) daily breakdown of duties performed
 - (2) special duties
 - (3) samples of forms
 - (4) any special terminology used on the job
 - (5) key to the filing system used in this particular office
 - (6) who's who
 - (7) lines of authority
 - (8) samples of letter styles and notes about stationery
 - (9) collection and delivery time of the mail
 - (10) telephone

- (11) how to fill in travel vouchers
- (12) machines and equipment in the office
- (13) supplies

Unit VII - Office Procedures and Organization
Lesson 8 - Understanding Formal Organization

LESSON OBJECTIVES

1. Given the titles of positions within a company, the student will draw a line and staff company structure with 90 percent accuracy within 20 minutes.
2. Given the titles of positions within a company, the student will draw an office support structure with 90 percent accuracy within 20 minutes.

SUGGESTED ACTIVITIES

- I. Instructor
 - A. Prepare transparencies
 - B. Provide objectives, information sheets, and handouts for students.
 - C. Assign Assignment Sheets.
 - D. Give posttest.
- II. Student
 - A. Read and discuss objectives and information sheets.
 - B. Complete Assignment Sheets.
 - C. Take posttest.

INSTRUCTIONAL MATERIALS

- I. Objective Sheet
- II. Information Sheets
- III. Handouts
 - A. HO 1: Line Structure
 - B. HO 2: Line and Staff Structure
 - C. HO 3: Traditional Secretarial Support Structure
 - D. HO 4: Structure Showing Importance of Information Processing
 - E. HO 5: Centralized WP/AS Structure
 - F. HO 6: Decentralized WP/AS Structure
 - G. HO 7: Combination Structure Retaining Traditional Secretary

IV. Assignment Sheets and Answers

- A. AS 1: Drawing a Line and Staff Structure**
- B. AS 2: Drawing a Traditional Secretarial Support Structure**

V. Posttest and Key

Unit VII - Office Procedures and Organization
Lesson 8 - Understanding Formal Organization

INFORMATION SHEETS

NOTE: As a secretary or clerical worker on a job, it is important to understand such things as to whom to report, who will evaluate performance, how the clerical or secretarial job relates to others in the department, and how the department relates to the entire organization.

In order to accomplish goals efficiently, organizations develop a structure indicating what positions exist within the company and how these positions are related to each other. This is usually done in the form of an **organizational chart**, which visually shows the formal relationships between positions and various departments by connecting lines. This organizational chart is usually printed in the employee manual.

It is important for the office worker to be familiar with the organizational chart in order to know her/his place in the company structure and to recognize the authority and responsibility assigned to her/his position.

I. Formal Organizational Structure

A. Line Structure

1. In line structure, authority flows vertically from the top hierarchical level to the bottom levels. There is a clear line of authority. Line positions usually consist of those activities directly associated with the attainment of the primary objective of the organization.
2. Each employee is responsible only to one supervisor and the duties of each are clearly defined.
3. Managers in the line structure deal with a variety of problems because no specialized staff is available to assist them.
4. Line organization is particularly suited to a small business. As a company expands, the line structure may give way to some other form of organizational structure.
(HO 1)

B. Line and Staff Structure

1. With the line and staff structure, the direct authority characteristic is still present and employees perform activities that are concerned with the attainment of the primary objectives of the firm.

2. However, with the line and staff structure, positions which are specialized and which support line activities are added and are called staff positions.
 - a. Staff members advise or assist line members and have no authority to put any recommendations into action.
 - b. Examples of staff positions might be an auditor, who makes recommendations to the treasurer of an organization; an administrative assistant or secretary, who assists a line manager; or a personnel officer, who recruits and interviews candidates for openings but does not actually select the new employee.
3. It is important to remember that a staff member in one organization might be considered a line member in a another organization.
4. A department that is considered staff usually has a manager who is in charge of several typists and/or secretaries. As an example, an Office Services Department would have an administrative office manager. The department has a staff relationship to the organization. However, the administrative office manager has a line relationship to the employees within that department because the manager is responsible for issuing orders and making sure the work is completed properly and efficiently. The manager is also responsible for evaluating the employees.
5. Depending on the organization, line and staff structure could be viewed two ways. (HO 2)
 - a. One organization might consider the company attorney, the auditor, and the secretaries as staff members. Another company might consider the company attorney, the secretaries, and the Finance Department as staff members of the organization. The Sales and Production Departments contribute directly to the attainment of the primary objectives of the organization but the Finance Department would perform supportive staff activities.
 - b. The organizational chart found in most companies will show with solid and/or broken lines those departments and positions considered line positions and those considered staff positions OR an explanatory footnote will show the relationships of the departments and positions to the overall company objectives.

II. Secretarial Support Structures

A. Traditional Structure

1. Until recently, upper level managers in organizations had personal or private secretaries; middle or lower level managers often shared secretarial personnel.
2. These secretarial positions were considered staff positions and were typically shown on organizational charts with broken lines. (They were considered staff positions because they had no direct authority or responsibility in the organizational structure. Their function was to support the information-processing needs of the organization.) (HO 3)

B. Modern Structure

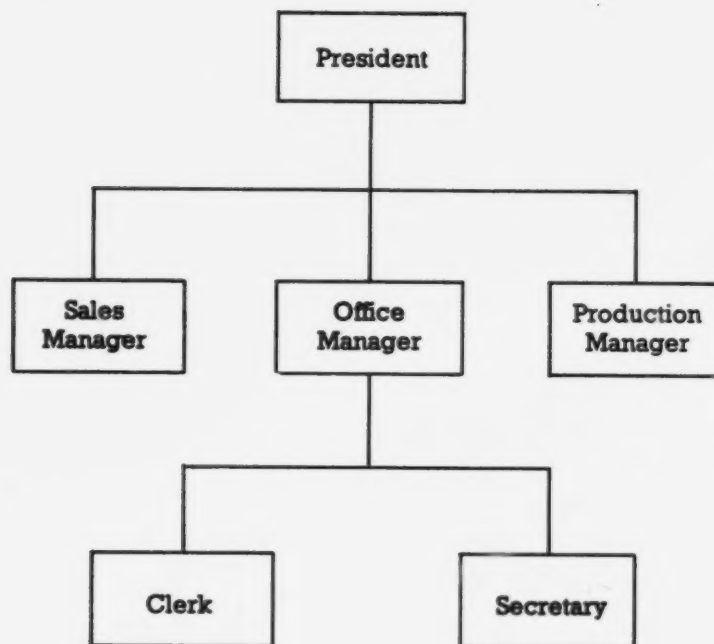
1. Because information processing support costs today equal the expenditures for production functions in American business, organizations are concerned that information processing functions be managed effectively.
2. Many business organizations are creating an upper-level managerial position with authority and responsibility for implementing, operating, and evaluating all information processing activities in the organization.
3. Note that the managerial position which controls the information processing activities of the organization is titled "Vice-President, Information Services." (HO 4)

C. Office Support Structures

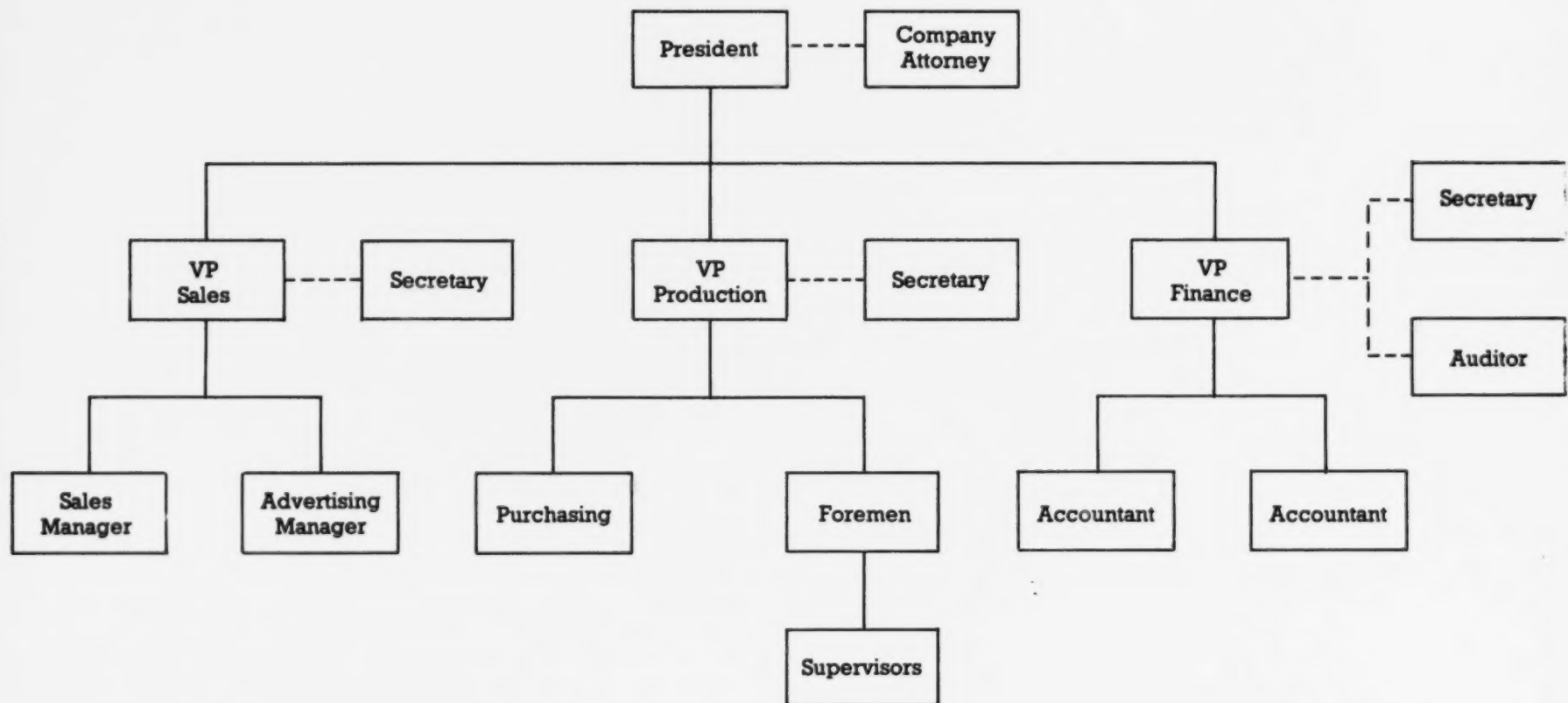
1. With the emergence of text-editing equipment have come the titles word processing and administrative support. The function of word processing, or correspondence secretaries, is all document preparation. Administrative support secretaries, on the other hand, perform nondocument-producing tasks.
2. Office support structures today are unique from organization to organization because there is no single best structure. However, many offices today are organized around the word processing and administrative support functions in a variety of combinations.
 - a. Centralized WP/AS Structure--In this arrangement, all word processing specialists, or correspondence secretaries, are centralized in one location and all administrative support secretaries are centralized in one location. Executives then have access to the centrally organized support groups. (HO 5)

- b. **Decentralized WP/AS Structure**--With a decentralized WP/AS structure, an organization creates a number of smaller word processing centers as well as administrative support groups. The organization may divide the company by floor, or by department, or by some other segment with each division being served by a WP/AS support center. This format offers more convenience and opportunity for personal contact between the user and the centers. (HO 6)
- c. **WP Centralized/AS Decentralized Structure**--When an organization uses this arrangement, the cost effectiveness of being able to use text-editing equipment remains because all typewriting functions are centralized. However, decentralization of administrative support gives executives direct access to clerical or secretarial employees for tasks such as answering the telephone, scheduling appointments, greeting callers, researching, etc.
- d. **Traditional Structure Combined with a WP Center**--Many executives and organizations prefer to retain the traditional secretary. However, a central word processing center which provides assistance in completing document producing tasks, especially those that are heavy or complex document-producing jobs, may also be created. The secretary remains responsible only to the executive while those in the WP center are professionally supervised. (HO 7)

Line Structure



Line and Staff Structure

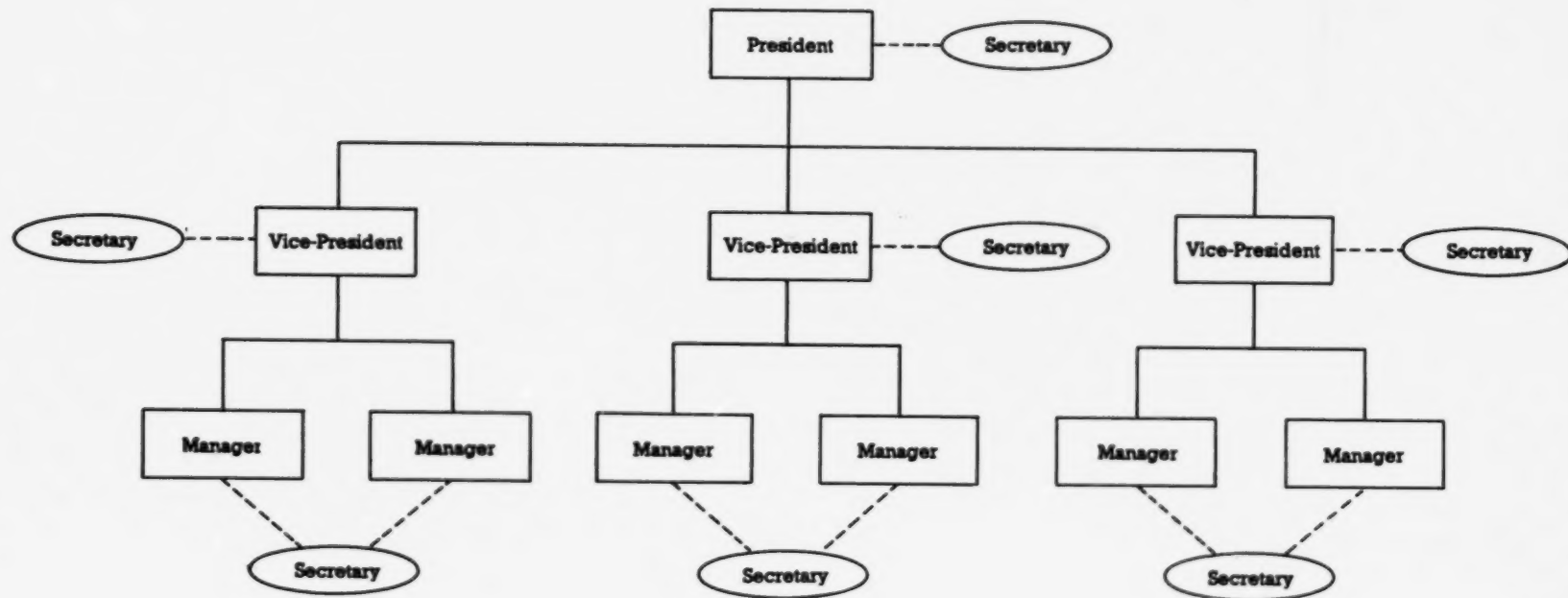


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HO 2

Traditional Secretarial Support Structure



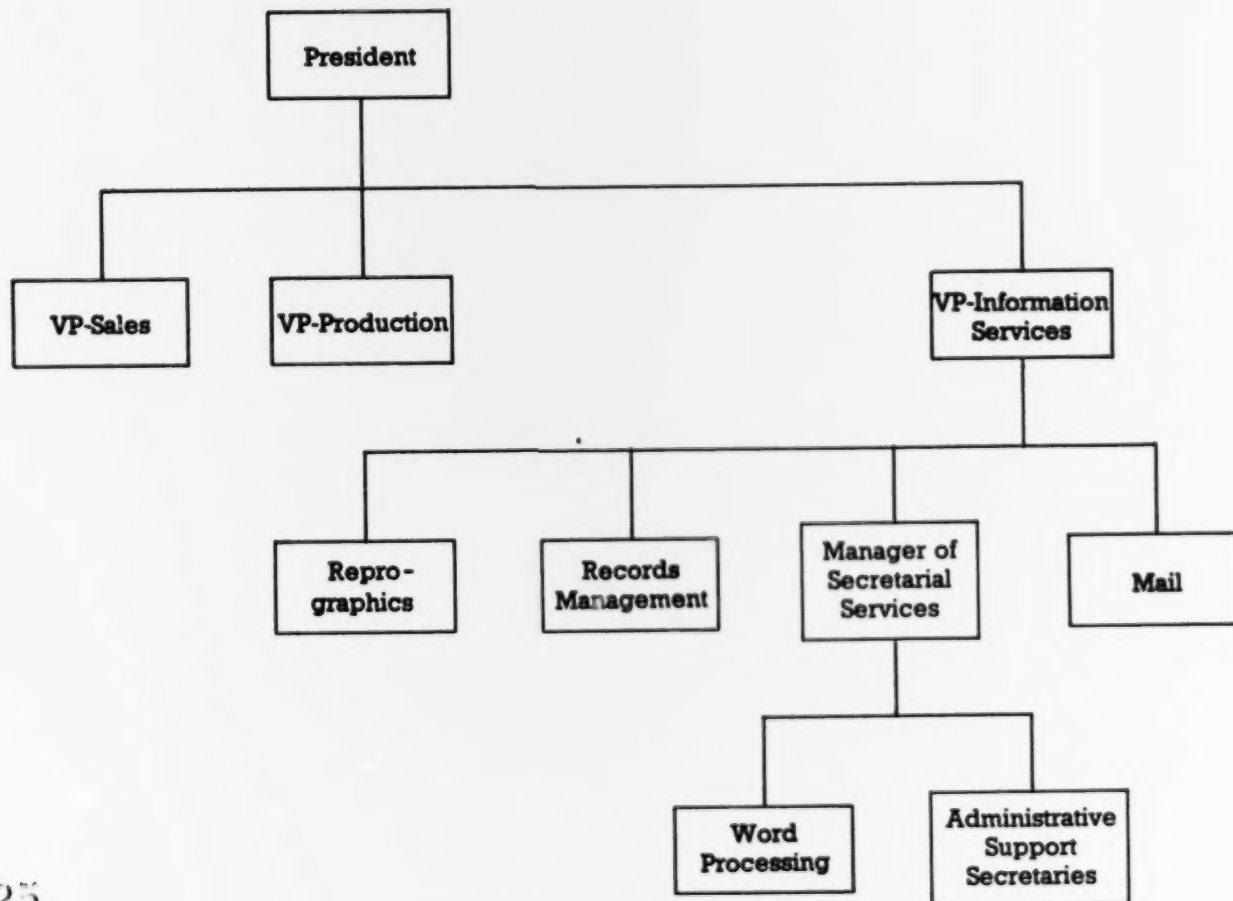
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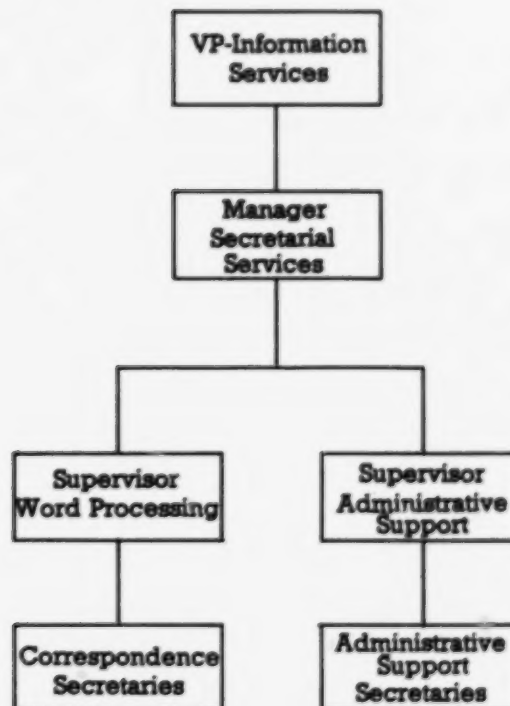
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HO 3

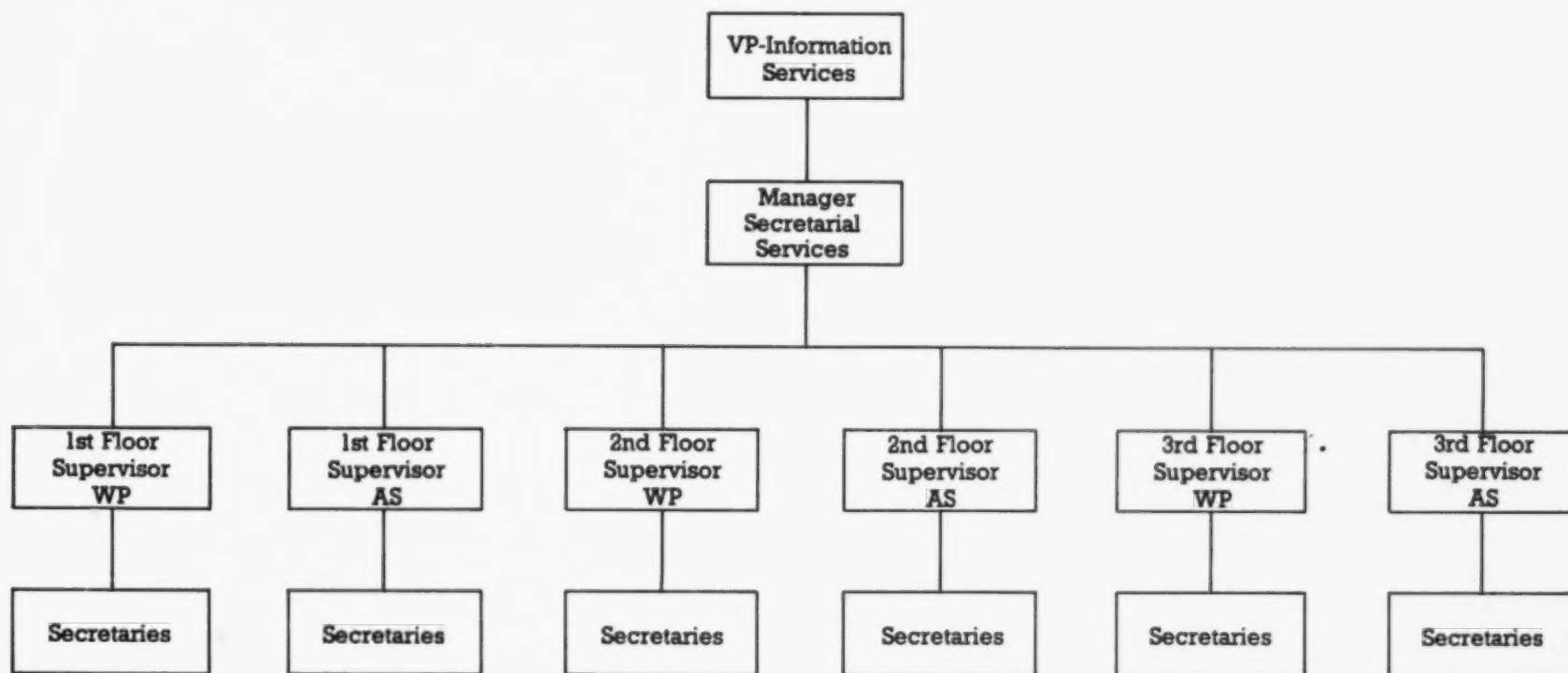
Structure Showing Importance of Information Processing



Centralized WP/AS Structure



Decentralized WP/AS Structure



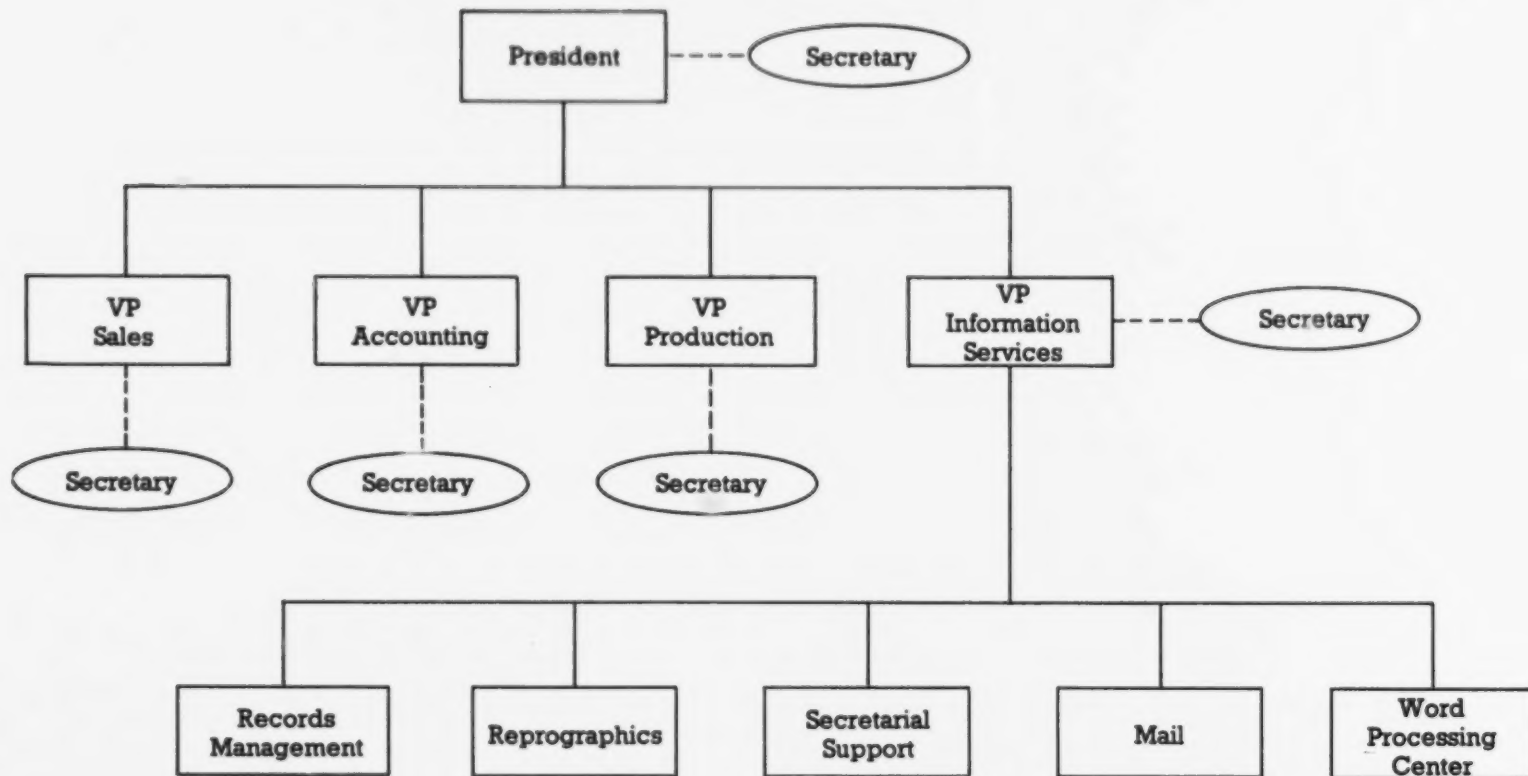
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HO 6

Combination Structure Retaining Traditional Secretary



Unit VII - Office Procedures and Organization
Lesson 8 - Understanding Formal Organization

ASSIGNMENT SHEET 1: Drawing a Line and Staff Structure

Directions: Using the following job titles, draw a line and staff structure.

President

Administrative Assistant

Vice President-Sales

Vice President-Accounting

Auditor

Sales Supervisor--Eastern Region

Sales Supervisor--Western Region

Accounts Receivable Clerk

Payroll Clerk

Accounts Payable Clerk

Unit VII - Office Procedures and Organization
Lesson 8 - Understanding Formal Organization

ASSIGNMENT SHEET 2: Drawing a Traditional Secretarial Support Structure

Directions: Using the following job titles, draw a traditional secretarial support structure.

President

Vice President Eastern Region

Vice President Western Region

Department Head Eastern Region

Department Head Eastern Region

Department Head Western Region

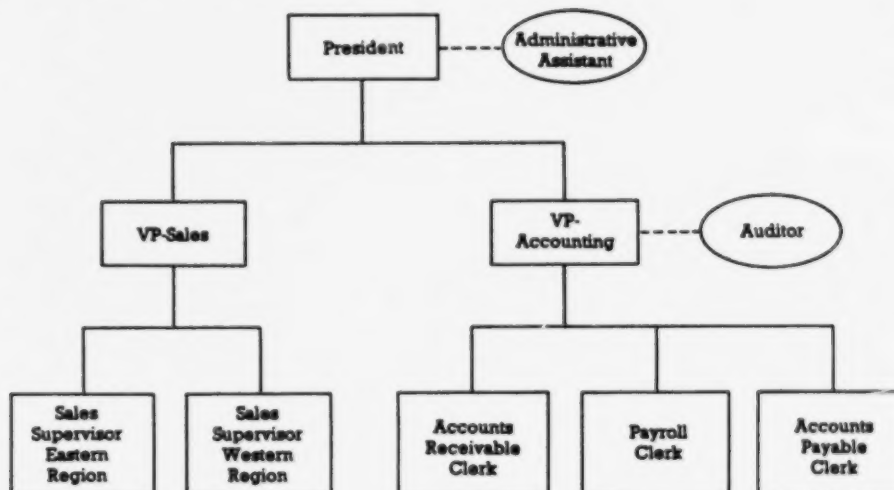
Department Head Western Region

NOTE: Each executive has a personal secretary except the department heads. The eastern region department heads share a secretary, and the western region department heads share a secretary.

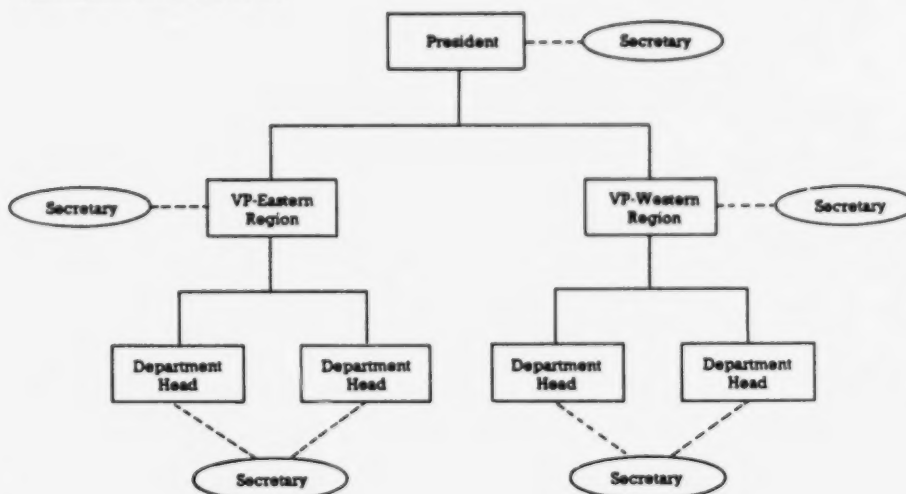
Unit VII - Office Procedures and Organization
Lesson 8 - Understanding Formal Organization

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet 1:



Assignment Sheet 2:



Unit VII - Office Procedures and Organization
Lesson 8 - Understanding Formal Organization

POSTTEST

Directions: Use the following job titles to draw a line and staff structure. (Use broken lines to show staff positions.)

President
Company Attorney (Staff Position)
Vice President-Production
Vice President-Sales/Marketing
Vice President-Administration
Vice President-Research (Staff Position)
Vice President-Public Relations (Staff Position)
Office Clerk-Production Department
Secretary-Production Department
Office Clerk-Sales/Marketing
Secretary-Sales/Marketing
Office Clerk-Administration
Secretary-Administration

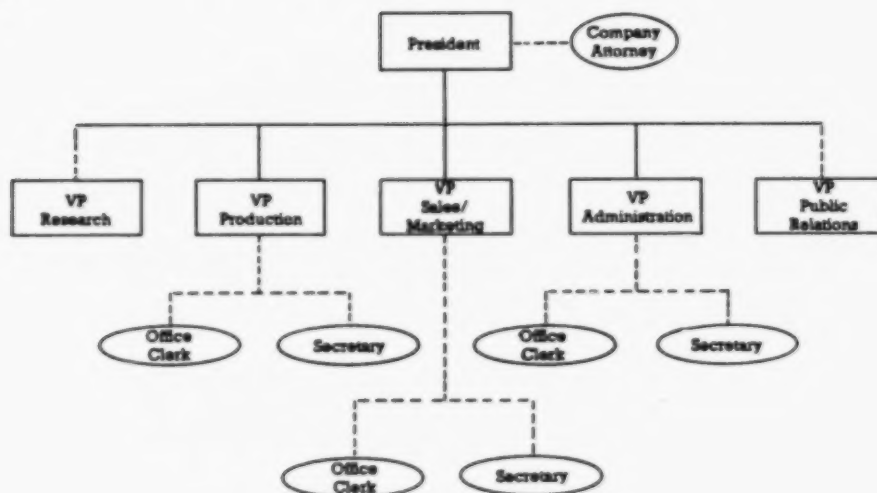
2. Use the following job titles to draw a traditional office structure combined with a word processing center.

President
Secretary to the President
Vice President-Sales
Vice President-Production
Vice President-Information Services
Secretary to Sales Vice President
Secretary to Production Vice President
Sales Manager-A
Sales Manager-B
Production Manager
Manager-Records Management
Manager-Reprographics
Manager-Word Processing

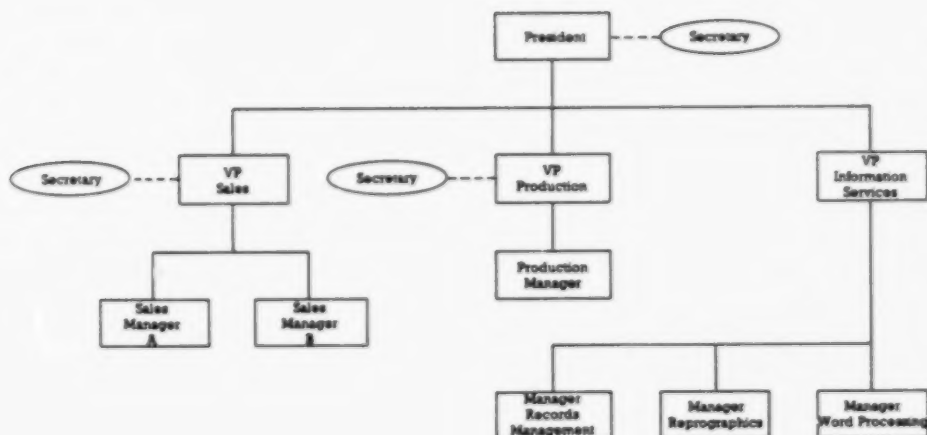
Unit VII - Office Procedures and Organization
Lesson 8 - Understanding Formal Organization

POSTTEST KEY

1.



2.



Unit VII - Office Procedures and Organization
Lesson 9 - Understanding Job Descriptions

LESSON OBJECTIVE

Given information regarding job descriptions, the students will define the term "job description" and list 3 basic sections with 90 percent accuracy within 15 minutes.

SUGGESTED ACTIVITIES

- I. Instructor
 - A. Provide objectives, information sheets, and handouts for students.
 - B. Assign Assignment Sheet.
 - C. Give posttest.
- II. Student
 - A. Read and discuss objectives and information sheets.
 - B. Complete Assignment Sheet.
 - C. Take posttest.

INSTRUCTIONAL MATERIALS

- I. Objective Sheet
- II. Information Sheets
- III. Handouts
 - A. HO 1: D.O.T. Job Description
 - B. HO 2: AMS Job Descriptions
 - C. HO 3: Detailed Job Description
 - D. HO 4: Word Processing Description
- IV. Assignment Sheet and Answers
 - A. AS 1: Comparison of Job Grade with Job Description
- V. Posttest and Key

Unit VII - Office Procedures and Organization
Lesson 9 - Understanding Job Descriptions

INFORMATION SHEET

Employees working for a small company probably will be told by the owner of the company what duties they must perform. As a company expands and jobs become more specialized and varied, written job descriptions outline the duties of each employee.

I. What is a Job Description?

- A. A written statement that outlines the duties and responsibilities of a certain job is called a job description. Sometimes a company includes in the job description the job specification, which lists the personal qualifications ("must be able to sit for long periods of time," or "must be able to type 60 words a minute") that an individual must possess in order to perform the duties and responsibilities.
- B. There are publications which list common job titles and descriptions of duties for each.
 1. The Dictionary of Occupational Titles (D.O.T.) is prepared by the U.S. Department of Labor.
 - a. The D.O.T. lists and codes by number over 20,000 common job titles and descriptions, enabling prospective employees to review possible careers or members of management to standardize individual company job descriptions. (HO 1)
 - b. By standardizing job titles and descriptions from company to company, reporting of statistical information is more uniform. Workers and members of management may then be more aware of job opportunities throughout the country.
 2. The Administrative Management Society (AMS) lists a total of 20 occupations available in the office cluster. The general office titles and descriptions can also be used by management to aid in writing job descriptions or can be used by students and prospective employees to aid in selecting an office job. (HO 2 lists the titles and descriptions given by AMS.)

II. The Job Description Usually Contains Three Basic Sections. (HO 3)

- A. The job identification
 1. Job title

2. Title of the department
 3. Job identification code
 4. Salary range
 5. Grade or classification level
 6. Job status
 - a. Nonexempt positions covered by the Fair Labor Standards Act that must be paid the applicable minimum wage, overtime for hours worked beyond a certain number, etc.
 - b. Exempt positions such as managers and professionals that are exempt from the requirements of the Fair Labor Standards Act.
- B. The job summary, which briefly describes the general purpose of the job and provides just enough information to differentiate the major functions of the job from those of others.
- C. The principal duties and responsibilities section of a job description
1. Lists the actual tasks and duties to be performed
 2. Might also include the following:
 - a. Identification of any "uncommon" duties in detail
 - b. Identification of tools or equipment needed
 - c. The title of the supervisor for that job
 - d. The relationship of the job being described to other jobs
 - e. Transfer and promotion possibilities

D.O.T. JOB DESCRIPTION

203.362-018 TERMINAL-SYSTEM OPERATOR (clerical)

Operates computer terminal and compiles data to produce business, scientific, or technical reports and publications in printlike format. Reviews source documents, such as correspondence, company records, statistical tables, and accompanying instructions to determine computer operations required to produce texts in format requested. Confers with source document originators to clarify instructions, such as paragraphing indentation, line spacing, and other style requirements. Arranges data input sequence according to manuals. Types coded commands on computer terminal keyboard to enter, store, retrieve, or delete data, using knowledge of coding system. Proofreads printout of draft copy to correct errors and verify format specifications. Types coded command to computer to produce finished copy on paper, magnetic tape, or punched cards for subsequent reproduction as completed texts by peripheral equipment, such as high-speed printers.

Source: Dictionary of Occupational Titles

AMS JOB DESCRIPTIONS

- A. Word Processing Operator -- Uses word processing equipment to input, edit, customize, and deliver medium-to-complex typed documents with established quality and time standards. Proofreads and edits own work. Incumbent is familiar with department terminology and company practices. Equipment includes the use of microprocessor-based, standalone, or shared-logic word processing systems utilizing a CRT screen. I.E., Xerox 850-86, Wang, Lanier, Vydec, Redactron, etc. May also perform general secretarial duties.
- B. Lead Word Processing Operator -- Utilizes full scope of equipment capabilities to produce and revise complicated documents, such as lengthy technical and statistical reports, from complex source information, including the retrieval of text and data. Leads the activities of lower-level operators.
- C. Accounting Clerk - Level B -- Checks, verifies and posts journal vouchers, accounts payable vouchers, payroll, or other simple accounting data of a recurring or standard nature.
- D. Accounting Clerk - Level A -- Maintains a complete set of accounting records in a small office, or handles one phase of accounting in a larger unit which requires the accounting training needed to determine proper accounting entries; reconciles entries, prepares accounting reports, analyzes accounting records to determine causes of results shown, etc. May direct work of junior clerks or bookkeepers (excludes supervisors). May include accounts payable clerk, payroll clerk, etc.
- E. General Clerk - Level B -- Performs basic office or clerical duties on short assignments and tasks which are highly structured in accordance with established procedures. This is a higher-level position than a file clerk involving a variety of routine and semi-routine duties.
- F. General Clerk - Level A -- Performs diverse clerical tasks requiring some analysis, judgment and a detailed knowledge of departments and/or company policies and procedures dealing with the incumbent's area of responsibility, such as claims operations, etc. Duties may require proficiency with one or more types of operational office equipment, such as CRT. Minimum supervision required.
- G. File Clerk -- Performs general alphabetical and numeric filing, sorting and cross referencing. Locates and removes material upon request and keeps records of its disposition. Maintains and updates files according to an established system. May deliver files, copy material from files, and purge out-dated materials.
- H. Mail Clerk -- Sorts incoming mail for distribution and dispatches outgoing mail. Opens envelopes by hand or with letter-opening machine. May stamp date and time of receipt on incoming mail. Sorts mail according to destination and type, such as returned

letters, adjustments, bills, orders, and payments. Readdresses undeliverable mail bearing insufficient or incorrect address. Examines outgoing mail for appearance and seals envelopes by hand or with envelope-sealing machine. Stamps outgoing mail by hand or with postage meter. May distribute and collect mail. Sorts outgoing mail according to destination and type of delivery.

- I. Shipping/Receiving Clerk -- Responsible for performing manual and clerical duties related to the receipt and shipment of goods: (1) Receives equipment, materials and supplies, verifies the items against the record of shipment, examines their condition on arrival, unpacks items as necessary; (2) Verifies, counts and prepares items for shipments according to specifications and the transportation method used. Maintains records and processes paperwork for goods received and shipped according to established procedures.
- J. Purchasing Clerk -- Compiles information and records to draw up purchase orders for procurement of material. Verifies nomenclature and specifications of purchase requests. Searches inventory records of warehouse to determine if material on hand is in sufficient quantity. Consults catalogs and interviews salespersons to obtain prices and specifications. Types or writes invitation-of-bid forms and mails forms to supplier firms. Writes or types purchase order and sends copy to supplier and department originating request. Compiles records, such as items purchased or transferred between departments, prices, deliveries, and inventories. Confers with suppliers concerning late deliveries. May compute total cost of items purchased, using calculating machine. May verify bills from suppliers with bids and purchase orders and approve for payment.
- K. Payroll Clerk -- Prepares input for each payroll including salary adjustments, special payments, tax allocations, and employee deductions. Codes and maintains all time sheets. Prepares payroll bank deposits, and audits and balances payrolls. Assists in preparation and payment of payroll taxes. Prepares appropriate journal entries for expensing of salaries.
- L. Cashier -- Receives funds from customers and employees, disburses funds, and records monetary transactions incidental to conduct of business. Counts money to verify amounts and issues receipts for funds received. Issues change and cashes checks. Verifies balances. Endorses checks and lists, and totals cash and checks for bank deposit. Prepares bank deposit slips. Withdraws cash from bank accounts and keeps custody of cash fund. Disburses cash and writes vouchers and checks in payment of company expenditures. May prepare bank-reconciliation reports. Operates office machines, such as typewriter, calculating, bookkeeping, and checkwriting machines. Prepares cash reports.
- M. Secretary - Level B -- Performs a limited range of secretarial duties in a small company or for a supervisor in a larger firm. May take dictation and transcribe from notes or dictating equipment with

speed and accuracy. Screens calls, makes appointments, handles travel arrangements, answers routine correspondence and maintains filing systems.

- N. Secretary - Level A -- Performs an unlimited range of secretarial duties for middle management personnel or more than one individual. Composes and/or takes and transcribes correspondence of a complex and confidential nature. Position requires a knowledge of company policy, procedure and above-average secretarial and administrative skills.
- O. Executive Secretary/Administrative Assistant -- Performs a full range of secretarial and administrative duties for high-level member of executive staff. Handles project-oriented duties and may be held accountable for the timely completion of these tasks. Relieves executive of routine administrative details. Position requires an in-depth knowledge of company practice, structure and a high degree of technical skills.
- P. Legal Secretary -- Performs an unlimited range of secretarial duties for one or more members of the firm, usually a junior, senior, or managing partner. Takes and transcribes dictation with a high degree of speed and accuracy. Position requires knowledge of the specific legal terminology within the attorney's areas of specialization; i.e., litigation, probate, corporate, etc. May utilize word processing equipment.
- Q. Switchboard Operator/Receptionist -- Operates a call-director type telephone system, greets visitors, screens incoming calls and performs basic clerical tasks. May operate a multiple position console and keep records of calls and toll charges.
- R. Clerk Typist -- Produces draft and/or finished typed copies of documents from a variety of originators. Form and content usually follow standard guidelines. May perform other clerical duties of minimum difficulty.
- S. Customer Service Representative -- Provides guidance and assistance to customers in oral or written form regarding problems with accounts or merchandise. May use CRT to verify information. Duties include records search, investigating problems/complaints, policy interpretation, response preparation and adjustment, or correction of records. May also open new accounts or provide general information.
- T. Photocopy Machine Operator -- Operates and maintains photocopier (i.e. Xerox 9200), loads blank paper, inserts handwritten or typed originals and determines the proper selection of controls to obtain desired copies. Maintenance includes cleaning and performing minor repairs. Contacts service representative for major malfunctions.

Source: Administrative Management Society

DETAILED JOB DESCRIPTION

Title of Job SecretaryD.O.T. Number 201.368Level of Job Level IVDate Approved 11/30/8-Department Information Services

SUMMARY OF JOB: The individual holding this position performs secretarial duties for the manager of the department. A considerable amount of the work is administrative in nature and the individual also supervises other office employees.

DUTIES OF JOB:

1. Taking dictation and transcribing materials
2. Keeping manager's appointment calendar
3. Supervising other office employees
4. Working with office budget
5. Answering correspondence
6. Protecting confidentiality of materials
7. Acting as RECEPTIONIST for manager's callers
8. Answering telephone
9. Preparing weekly salary data
10. Allocating work among others
11. Filing documents and materials
12. Preparing reports
13. Designing interoffice forms
14. Evaluating subordinates
15. Duplicating materials
16. Maintaining petty cash

EQUIPMENT USED: Typewriter, calculator, copy machine, dictation equipment, telephone, word processor, microcomputer, etc.

FORMS AND REPORTS USED ON JOB: Departmental budget, payroll forms, personnel evaluation forms, petty cash disbursements, and other office reports as called for

SUPERVISED BY: DEPARTMENT MANAGER

RELATION TO OTHER JOBS: This position is related to all other secretarial and clerical jobs in the department since the individual is responsible for assigning work to other employees. Since this position is the highest secretarial position in the department, promotion possibilities include a secretarial position in the central offices or as an ADMINISTRATIVE ASSISTANT.

WORD PROCESSING DESCRIPTION

Position: WORD PROCESSOR
Section: WORD PROCESSING CENTER

Definition: Performs work of moderate to considerable difficulty concentrating on the production of correspondence; plans necessary steps to complete work in the most rapid and efficient manner possible making full use of word processing equipment features; performs full word processing duties; performs related work as required.

Examples of Work Performed:

1. Handles a continuously heavy workload including setting up manuals and lengthy reports utilizing full capabilities of word processing equipment.
2. Makes use of word processing software to determine the most efficient procedure for setting up reports, lists, et cetera.
3. Sets up format for and rapidly handles statistical typing, tables, and charts.
4. Transcribes cassettes.
5. Completes a considerable volume of copy typing and correspondence.
6. Sets up and runs repetitive letters in a large volume and coordinates with requesting section.
7. Learns advanced equipment techniques, such as programming for merged layout of documents.
8. Sets up permanent files for materials to be stored on diskette.
9. Sets up and plays out prerecorded paragraphs and letters.
10. Revises documents creating updated revisions and final documents.
11. Maintains diskette files and procedures for all work done.
12. Logs production time.
13. May review work of other word processors for accuracy.
14. Assists in training new employees.
15. Assists in explaining proper procedures of the Word Processing Center to the sections within the Department.
16. Keeps up to date on English grammar, punctuation, word usage, and any special rules pertaining to our organization.

17. Does minimal photocopying when time permits.

Required Knowledge, Skills, and Abilities:

1. Knowledge of word processing theory and concepts.
2. Excellent typing and transcription skills.
3. Ability to produce a high quantity and quality of work.
4. Ability to handle confidential correspondence and data.
5. Excellent spelling, grammar, word usage, punctuation, capitalization, and editing skills.
6. Ability to organize and maintain a filing system for stored and recorded data.
7. Teamwork skills.
8. Must be interested in detail and accuracy.
9. Ability to work independently in the absence of specific instructions.
10. Ability to work under pressure and to meet deadlines.
11. Must be knowledgeable of sections throughout the Department regarding their terminology, procedures, requirements, et cetera.
12. Considerable skill in operating the IBM Displaywriter rapidly and accurately.

Minimum Experience and Training:

1. Graduation from high school and two years of experience in a responsible secretarial or stenographic position or an equivalent combination of training and experience.
2. Proficiency in typing, transcription, English grammar, punctuation, and word usage.
3. Word processing experience is highly desirable.

Source: Administrative Management Society

Unit VII - Office Procedures and Organization
Lesson 9 - Understanding Job Descriptions

ASSIGNMENT SHEET 1: Comparison of Job Grade with Job Description

Directions: The list below contains classifications by grade. Choose one job from the list and write a job description. (Be sure to include the three basic sections.)

INSURANCE COMPANY JOBS CLASSIFIED BY GRADE

GRADE I

File Clerk
Mail Clerk
Supply Clerk
Microfilm Processor

GRADE II

Clerk Typist
Photocopy Operator
Microfilm Operator
Code Clerk
Document Control Clerk
Claims Control (Mail) Clerk

GRADE III

Accounting Clerk
Clerk Typist
Receptionist
Secretary
Word Processor
Direct Entry Operator
Processor
Printing Press Operator

GRADE IV

Accounting Clerk
Secretary
Senior Processor
Payroll Records Clerk
Senior Word Processor
Claims Examiner Trainee
Billing Processor

GRADE V

Secretary
Underwriter Assistant
Claims Specialist
Claims Examiner
Word Processor Specialist
Computer Tape Librarian

GRADE VI

Secretary
Computer Operator
WPC Graphics Specialist
Senior Claims Examiner
Document Control Supervisor
Purchasing Assistant

Unit VII - Office Procedures and Organization
Lesson 9 - Understanding Job Descriptions

ANSWERS TO ASSIGNMENT SHEET

Be sure the student has included a job description, job summary, and duties and responsibilities.

POSTTEST

1. Define "job description."
2. Name and describe two common publications that list job descriptions.
 - a.
 - b.
3. The job description usually contains what three basic sections?
 - a.
 - b.
 - c.

Unit VII - Office Procedures and Organization
Lesson 9 - Understanding Job Descriptions

POSTTEST KEY

1. Job description--A written statement that outlines the duties and responsibilities of a certain job.
2.
 - a. The Dictionary of Occupational Titles lists and codes by number over 20,000 common job titles and descriptions.
 - b. The Administrative Management Society lists 20 occupations available in the office cluster.
3.
 - a. Job identification
 - b. Job summary
 - c. Duties and responsibilities



Using Numerical-Clerical Records

Unit VIII - Numerical Clerical Records

UNIT OBJECTIVES

At the conclusion of this unit, the student will be able to read and copy numbers correctly; perform correct addition, subtraction, multiplication and division problems with calculating machines; use fractions, decimals, and percentages; and use calculating machines to correctly perform transactions for banking, petty cash, payroll, purchase orders and invoices.

LESSON OBJECTIVE

1. Given instruction and practice using the touch system on an electronic calculator, the student will be able to achieve 100 correct strokes per minute on a three-minute timing.
2. Given 20 problems, the student will be able to change fractions to decimals, change percentages to decimals, and change decimals to percentages with 90 percent accuracy within 10 minutes.
3. Given 20 problems involving C, M, dozen, and gross, the student will be able to convert the items to the proper decimal equivalents with 90 percent accuracy within 10 minutes.
4. Given an electronic calculator, the student will be able to install a new paper tape, place working papers properly, and complete 50 problems using multiplication, division, decimals, fractions, and percentages with 90 percent accuracy within 30 minutes.
5. Given an invoice to be completed, the student will "extend" the invoice amounts, figure discount, sales tax, and the net total within 10 minutes with 90 percent accuracy.
6. Given a series of 25 checks to be written and information for 4 deposit slips, the student will be able to complete the check register, prepare the deposit slips, and reconcile the monthly bank statement with 90 percent accuracy within 60 minutes.
7. Given information for 16 petty cash vouchers, the student will be able to complete the necessary steps to disburse the funds, check the balance, and replenish the petty cash fund with 90 percent accuracy within 45 minutes.
8. Given information on hours worked, dependents, and other deductions for 10 employees, the student will be able to figure regular and overtime gross earnings, calculate payroll deductions, compute net earnings and prepare payroll checks with 90 percent accuracy within 30 minutes.

COMPETENCIES

1. Operate an electronic calculator using the touch system
2. Convert fractions, decimals, and percents to equivalent forms
3. Convert mathematical terms such as gross to their numerical equivalents
4. Operate an electronic calculator to perform basic mathematical functions
5. Complete invoices
6. Prepare checks, make deposits, and reconcile bank statements
7. Handle petty cash
8. Figure payroll

NOTES TO THE INSTRUCTOR

The section on numerical clerical records is designed to be used throughout the year in the vocational programs. The assignments given are meant to be a minimum amount for all students.

Clerical students should be given additional assignments. They should do additional work with the machines while secretarial students are working on shorthand.

Instructors may find additional assignments in reference books or devise assignments that correlate with work done in the community.

REFERENCES

I. Books and Pamphlets

- A. Jones, Arvella, Touch Operation of the Electronic Calculator. Cincinnati, OH: South-Western Publishing Company, 1985.
- B. Pasewark, William R. Electronic Printing Calculator, 2nd Edition. Cincinnati, OH: South-Western Publishing Company, 1982.
- C. Polisky, Mildred and Meehan, James. Solving Business Problems on the Electronic Calculator, 2nd Edition. New York: Gregg/McGraw-Hill, 1983.
- D. Seltzer, Ralph. Using Electronic Calculators, 2nd Edition. Baltimore, Maryland: H.M. Rowe Company, 1982.

Unit VIII - Numerical Clerical Records
Lesson 1 - Using the Electronic Calculator

LESSON OBJECTIVE

Given instruction and practice using the touch system on an electronic calculator, the student will be able to achieve 100 correct strokes per minute on a three-minute timing.

SUGGESTED ACTIVITIES

I. Instructor

- A. This section should be covered early in the first quarter as it is the basis for using all calculators and data-entry on the computers.
- B. Objective and information sheets should be given to each student.
- C. Present information for using the touch system on the electronic calculator.
- D. Explain and demonstrate use of all function keys.
- E. Explain procedure for correcting errors and checking tapes.
- F. Explain how to identify credit answers and how to record them.
- G. Distribute Assignment Sheet 1.
 - 1. After student has completed 50 problems, time the student individually for one minute to see if the student can complete two problems containing 50 strokes each. (These can also be selected from a reference book.)
 - 2. After completing 100 problems, check student's answer sheet for accuracy.
 - a. If 95 percent accuracy is not achieved, time student again.
 - b. If student has not achieved 95 percent accuracy, either do the same problems again or give an additional 50 to 100 problems.
 - c. If answers are 95 percent accurate, students should still find and correct errors on problems missed.
 - d. If time is a factor and instructor cannot check each student individually, students may check each other.

3. In small groups, depending on number of machines, give three-minute timings on the calculator. If students do not achieve the 100 strokes a minute, give additional practice.
- L. Assign Assignment Sheets 2 and 3.
- M. Give posttest. Student must complete six problems correctly in the three-minute time limit. If student does not meet minimum standard, administer Posttest 2.

II. Student

- A. Read and discuss Objective and Information Sheets.
- B. Observe instructor's demonstration of the touch method.
- C. Complete Assignment Sheets.
- D. Complete posttest.

INSTRUCTIONAL MATERIALS

I. Objective Sheet

II. Information Sheets

III. Transparency Master

- A. TM 1: Electronic Calculator Part Identification

IV. Assignment Sheets and Answers

- A. AS 1: Electronic Calculator Problems
- B. AS 2: Electronic Calculator Touch (Vertical and Horizontal Addition)
- C. AS 3: Horizontal and Vertical Addition
- D. AS 4: Verifying Check Records

V. Posttests and Keys

Unit VIII - Numerical Clerical Records
Lesson 1 - Using the Electronic Calculator

INFORMATION SHEET

I. Hand and Finger Position:

- A. Right hand on calculator with index finger on 4, middle finger on 5, ring finger on 6, little finger over + (plus) bar, thumb over 0
- B. Left hand over "copy" to help direct eyes when reading copy
- C. Copy should be in easy reading position
- D. Index finger strikes the 1, 4, and 7; middle finger strikes the 2, 5, and 8; ring finger strikes the 3, 6, and 9; little finger is used to manipulate keys to right of number keys: + (plus) bar, - (minus) key, total key, sub-total key
- E. Eyes should remain on copy. Use "touch" system with right hand to operate machine

II. Using the Electronic Calculator

- A. Clear register--press total key or clear key
- B. Set machine for adding whole numbers
 - 1. Set decimal indicator on 0
 - 2. Set the round-off key on 0 or 5
 - 3. Check with instructor to find out if there are other features to be changed.
- C. Non-add key
 - 1. Causes a number to be printed on tape but not added
 - 2. Used to identify or number problems
- D. Subtract key
 - 1. Depressed after entering a number
 - 2. Causes number to be subtracted rather than added
- E. Sub-total key
 - 1. Used to obtain a "partial" total--when other numbers will be added to the sub-total
 - 2. Does not clear the machine

F. Add-mode key

1. Will automatically put two decimal places in figure
2. Used only when adding or subtracting money
3. Do not use for multiplication or division

III. Correcting Errors

- A. When an incorrect number has been entered but NOT printed on the tape, use the CE (clear entry) key to clear the number from the machine.
- B. When an incorrect number has been printed on the tape but the total has not been taken, enter the incorrect number again and cancel it out by subtracting if the number was added or adding if the incorrect number was subtracted. Then enter the correct number.
- C. If a total has been taken and you are verifying your answer by checking the tape with the copy, mark out the incorrect number, write the amount of the difference (with the + or -) beside the number, and add or subtract the difference from the total to indicate the correct answer.

IV. Verifying Totals (Proving Accuracy)

- A. Since accuracy is extremely important, all answers should be checked before they are entered on the answer sheet (or on any forms in the office).
- B. To prove accuracy, check the adding machine tape with the copy. If figures are the same and the correct key has been depressed for + or -, the answer should be correct.
- C. Another way to prove accuracy is to perform the problem twice. If the second answer agrees with the first, you can assume it is correct.
- D. If you are verifying a problem that has already been done by someone else and an answer is given, perform the problem once. If the answer agrees with the answer given when the problem was completed the first time, you can assume the answer is correct. If the two answers do not agree, follow one of the procedures given to verify the correct answer.

V. Identifying and Recording Credit Answers

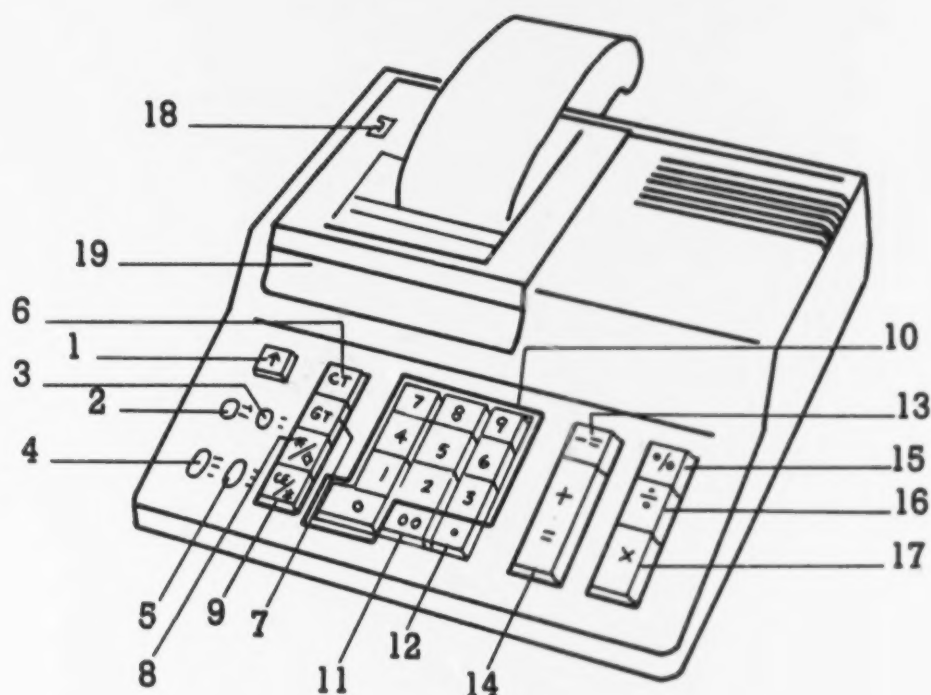
- A. A credit answer occurs when a larger number is subtracted from a smaller one.
- B. Machines vary, but a credit answer is usually printed in red or with a -(minus) sign behind it.

- C. When recording credit answers on an answer sheet, identify them with a -(minus) sign before the answer or write CR behind the answer.

VI. Vertical and Horizontal Addition

- A. **Column**--group of figures to be added "going down" (This is adding vertically)
- B. **Row**--a group of figures to be added "going across" (This is adding horizontally)
- C. **Cross-checking**--adding the totals of the rows and the totals of the columns; both answers should be the same (Occasionally the totals may have to be subtracted in order to check answers)

Electronic Calculator Part Identification



- | | |
|------------------------------------|-------------------------|
| 1. Paper feed key | 10. Numeral keys |
| 2. Print mode selector | 11. Double zero key |
| 3. Grand total selector | 12. Decimal point key |
| 4. Constant/Add mode selector | 13. Minus equals key |
| 5. Decimal selector | 14. Plus equals key |
| 6. Count key | 15. Percent key |
| 7. Grand total key | 16. Division key |
| 8. Non-add/Sub-total key | 17. Multiplication key |
| 9. Clear entry/clear and total key | 18. Paper release lever |
| | 19. Display |

Unit VIII - Numerical Clerical Records
Lesson 1 - Using the Electronic Calculator

ASSIGNMENT SHEET 1: Calculator Problems

Part 1:

Directions: Work these problems using addition, subtraction, sub-total, and add-mode. Then see your instructor before completing Part 2.

Set machine for whole numbers.

1	2	3	4	5	6
918	310	521	671	610	511
867	672	674	782	574	674
532	952	344	734	225	852
401	310	723	286	471	781
254	744	891	910	398	268
367	856	586	551	684	893
809	893	489	794	583	797
<u>450</u>	<u>867</u>	<u>789</u>	<u>868</u>	<u>778</u>	<u>995</u>

7	8	9	10	11	12
915	453	720	574	536	190
867	652	431	471	213	208
491	200	480	398	521	259
892	746	671	621	145	102
143	389	530	409	234	561
165	987	409	929	489	902
746	458	258	647	902	610
<u>887</u>	<u>959</u>	<u>299</u>	<u>153</u>	700	143
				394	709
				245	124
				769	267
				<u>351</u>	<u>306</u>

13	14	15	16	17	18
963	817	143	687	483	795
81	940	650	282-	196	387-
320	32	277	896	654-	596
894	420	410	397	983	135-
685	685	658	608-	248-	727-
686	607	823	346	162-	950
106	148	752	891	259	825-
124	190	862	476-	640	418
576	539	750	319-	194-	432
92	208	308	<u>879</u>	<u>273-</u>	<u>211-</u>
590	906	142			
<u>196</u>	<u>213</u>	<u>964</u>			

19	20	21
436	513	436
707	602	707
501-	189-	501-
512	316	512
164-	902	164-
658-	716-	810
810	793	798
798	168-	658-
397-	273	397
<u>168-</u>	<u>512</u>	<u>168-</u>

II. Credit Balances

22	23	24	25	26	27
440	376	253	724	813	4,738
-670	-846	-285	-875	-946	464-
230 CR					954-
					747
					1,932-
					909
					669
					778
					3,140
					682-
					863
					<u>9,778-</u>

28	29	30
600-	7,318-	9,147-
68	3,268-	65
2,214-	34	681-
15	737	1,884
4,310	6,986	397
976-	483	5,397
97	2,295-	73
5,946-	501	932-
549	512	581
109	53	6,455-
860	7,785-	257
<u>8,969-</u>	<u>29</u>	<u>8,149-</u>

362

III. Set your machine on add-mode so your figures will automatically have two decimals.

31	32	33	34	35	36
12.53	215.20	125.12	51.00	451.23	961.20
24.00	9.45	46.43	671.70	9.52	573.03
3.05	435.20	313.50	9.72	12.85	684.12
29.76	1.63	514.68	6.34	27.80	815.46
438.33	566.84	14.68	8.58	8.89	784.04
563.65	71.68	62.18	.28	90.66	497.56
815.30	4.97	72.39	345.12	678.63	292.20
79.13	897.91	85.94	6.84	15.42	198.37
4.58	4.98	20.75	214.31	323.90	318.67
<u>96.21</u>	<u>7.32</u>	<u>99.25</u>	<u>9.54</u>	<u>4.51</u>	<u>195.35</u>
37	38	39	40	41	42
238.47	893.66	895.91	917.10	225.80	106.58
49.23	9.80	41.06	121.03	63.21	24.37
784.19	437.64	678.75	5.46	<u>49.71</u>	<u>99.13</u>
12.47	9.52	458.19	88.94	S	S
68.91	.18	12.47	52.62	918.76	215.20
162.71	5.68	35.12	345.71	53.19	893.66
18.92	165.47	27.32	68.50	68.02	437.47
53.75	23.71	121.94	6.06	<u>113.55</u>	<u>55.68</u>
86.12	6.94	51.74	9.15		
<u>6.72</u>	<u>212.47</u>	<u>.10</u>	<u>77.32</u>	T	T
43	44	45	46	47	48
877.32	897.91	112.85	1,681.92	2,143.10	1,385.49
917.10	125.34	84.73	5,196.81	5,831.94	2,143.10
<u>568.44</u>	<u>930.66</u>	<u>205.65</u>	7,804.39	2,378.85	1,956.71
S	S	S	4,414.78	6,591.17	2,845.80
238.47	51.02	895.91	3,281.64	5,428.08	5,885.17
95.61	972.84	783.62	<u>5,892.14</u>	8,585.71	1,408.28
530.75	330.70	162.71	S	6,415.00	4,156.00
<u>672.90</u>	<u>645.01</u>	<u>304.74</u>	7,968.07	8,208.14	<u>3,742.56</u>
T	T	T	4,384.05	2,943.94	S
			9,268.47	<u>6,574.23</u>	2,934.94
			1,897.62	S	1,603.70
			3,449.08	4,609.88	8,880.46
			4,397.02	3,106.07	6,559.94
			2,431.22	3,567.01	6,278.59
			4,900.07	4,695.95	5,012.07
			2,324.40	2,015.70	7,919.35
			7,139.91	5,627.89	1,210.33
			3,650.70	2,570.23	2,666.00
			3,120.72	3,591.79	8,853.27
			6,377.00	3,312.10	9,117.56
			<u>2,327.01</u>	<u>6,626.00</u>	<u>4,828.05</u>
			T	T	T

49	50
6,006.26	3,247.56
1,021.33	4,934.92
9,719.53	4,180.28
3,207.52	5,001.64
9,872.65	1,758.58
7,051.02	8,082.45
5,959.64	7,119.56
1,076.53	5,887.32
7,060.13	4,913.85
8,890.64	1,043.21
3,247.56	7,323.86
4,934.92	<u>8,079.53</u>
4,180.28	S
<u>4,934.92</u>	8,437.67
S	7,424.66
3,247.56	7,129.56
8,890.64	4,071.93
7,060.13	1,068.45
1,076.53	1,497.39
5,959.14	8,989.23
<u>7,051.02</u>	<u>2,714.92</u>
T	T

Check with instructor for timed evaluation.

Part 2:

Directions: Complete these 50 additional problems using the touch method.

1	2	3	4	5	6
108.50	47.78	42.45	52.46	203.98	76.23
93.00	60.94	109.99	176.78	54.32	851.06
815.90	24.58	164.33	718.94	12.45	.16
764.03	64.32	233.54	214.58	29.99	72.98
283.64	72.23	535.30	493.12	432.67	62.59
122.20	51.10	341.20	312.35	84.26	20.66
<u>32.06</u>	<u>93.43</u>	<u>45.37</u>	<u>234.35</u>	<u>193.54</u>	51.47
					14.52
					<u>14.52</u>
					S
					<u>7.15</u>
					T
7	8	9	10	11	12
3.85	243.06	7.21	54.02	18.00	28.76
4.77	42.58	.68	.10	- 4.90	- 5.96
1.88	38.51	<u>5.68</u>	6.51		
334.87	19.82	S	30.54		
<u>334.87</u>	60.27	10.34	149.59		
S	77.43	386.20	<u>149.59</u>		
259.69	<u>471.79</u>	71.23	S		
69.40	S	45.67	6.38		
4.78	859.93	61.86	.46		
86.57	607.12	56.82	7.33		
<u>88.57</u>	<u>607.12</u>	<u>266.85</u>	<u>413.27</u>		
T	T	T	T		
13	14	15	16	17	18
36.04	9.49	15.18	12.83	8,926.27	.97
- 2.66	- 4.49	- 4.15	17.15	32.46	691.18
			41.80-	3.08	98.50-
			163.00	2,735.75-	886.19
			705.58	207.50	54.77
			.61-	6.15-	79.42-
			19.43	911.41-	9.13
			57.02-	8.24	.10-
			.55	183.12	1,584.36
			11.89-	.36	88.23-
			7.06	135.28-	337.60
			<u>35.32</u>	<u>4.66</u>	<u>76.29</u>

19	20	21	22	23	24
83.13	7,465.76	3,821.43	194.59 -	9,178.82	2,916.55
.89	540.69	335.99	821.75 -	312.37	345.65 -
4,699.05	45.84	6,709.13	4,186.64 -	147.46	844.15
.28	3.87	67.82	379.89	1,539.40	656.74 -
97.88	23.88	4,263.44 -	277.40	866.28	3,869.44
721.56 -	541.23 -	2.62	5,155.37 -	788.69 -	288.61
78.00	4.60 -	25.10	817.46	3,296.48 -	5,539.40 -
399.81	79.64	317.07	492.13 -	698.91	483.69
3.40	.14	2.89	274.31 -	149.70 -	624.98
91.83 -	74.56	883.00	4,859.53	9,834.91 -	6,966.00 -
77.00	2,310.33	<u>1,969.78</u>	<u>711.17 -</u>	<u>16.82</u>	<u>239.02</u>
<u>76.34</u>	<u>8,466.35</u>				

25	26	27	28	29	30
606.33 -	791.30	172.16	773.19	602.05	199.86
4,384.72	236.80	833.83	818.25	528.36	60.97
713.88 -	435.66	520.96	940.15	81.08	268.35
245.72	49.50	866.59	114.47	314.49	427.46
684.06 -	128.33	64.41	438.99	850.27	34.08
307.17	96.11	904.05	633.28	349.02	278.14
175.99	703.55	291.63	198.56	511.17	723.82
201.27	88.03	359.36	875.12	322.31	503.35
8,879.14 -	411.65	56.72	294.40	50.60	942.02
512.57	903.78	816.40	151.03	212.29	629.70
<u>670.86 -</u>	110.96	553.95	20.18	741.58	582.22
	<u>218.54</u>	<u>794.10</u>	<u>256.34</u>	<u>607.92</u>	<u>103.73</u>

31	32	33	34	35
94.55	65.89	2.77	31.16	
3.24	24.28	8.15	71.11	
7.18	38.15	33.93	15.39	
16.20	6.53	60.84	6.48	
41.00	9.99	5.42	42.30	
<u>50.23</u>	<u>13.56</u>	<u>.77</u>	<u>7.81</u>	

_____ + _____ + _____ + _____ = _____ Grand Total

36	37	38	39	40	
3.90	24.56	79.59	53.64		
81.75	5.79	4.01	29.18		
.84	83.47	8.67	.77		
1.27	13.60	2.30	80.21		
6.18	15.32	8.52	4.19		
<u>.66</u>	<u>1.43</u>	<u>.36</u>	<u>3.51</u>		
_____	+	_____	+	_____	= _____ Grand Total

41	42	43	44	45
54.97	8,004.15	.32	31.39	6,331.27
73.08	67.67	291.12	.29	418.30 -
43.64 -	2.52	42.29 -	1,264.12	23.92
626.97	1,899.84 -	856.36	.03	2.48
100.82	390.51	93.08	63.52	59.57
.43 -	9.79 -	47.47 -	205.06 -	920.02 -
77.58	209.39 -	9.83	64.78 -	5.62 -
70.19 -	3.15	.02 -	703.07	26.31
.57	489.60	9,069.47	9.84	.30
70.07 -	.12	38.47 -	88.94 -	84.19
6.94	827.64 -	505.15	698.17	1,816.30 -
<u>62.61</u>	<u>7.84</u>	<u>80.90</u>	<u>50.59 -</u>	<u>5,459.05</u>

46	47	48	49	50
1,885.47	751.25 -	7,752.75	1,492.59	868.13 -
149.34	500.73 -	668.16	258.72 -	5,812.04
5,125.12	1,176.90 -	721.02	931.50	974.89 -
94.31	298.71	3,943.56	895.70 -	687.24
8,312.54 -	438.46	664.11	2,678.13	384.01 -
8.91	2,541.23 -	875.34 -	545.82	757.02 -
15.63	356.40	6,362.45 -	4,781.48 -	421.03
7,812.85 -	863.14 -	473.05	339.25	598.75
9.25	382.56 -	287.67 -	212.46	6,135.15 -
256.43 -	4,764.35	9,198.80 -	3,494.60 -	296.63
<u>1,076.72</u>	<u>613.25 -</u>	<u>199.98</u>	<u>437.37</u>	<u>239.66 -</u>

Unit VIII - Numerical Clerical Records
Lesson 1 - Using the Electronic Calculator

ASSIGNMENT SHEET 2: Electronic Calculator Touch (Vertical and
Horizontal Addition)

Directions: Study these terms and then complete the following problems.
Cross-check the answers by adding the totals.

COLUMN - a group of figures to be added "going down." This is adding vertically.

ROW - a group of figures to be added "going across." This is adding horizontally.

CROSS-CHECKING - adding the totals of the rows and the totals of the columns. Both answers should be the same. Occasionally the totals may have to be subtracted in order to check answers.

Employee's Number	Units Produced					Total
	Mon.	Tues.	Wed.	Thurs.	Fri.	
773	1362	1645	1574	1963	1437	
774	1870	2121	2165	1936	1845	
775	1924	1863	2138	1736	1649	
776	1981	1936	1849	1791	1528	
777	1893	1787	2162	2170	1857	
778	1816	1762	1970	1590	1964	
Total						

2.

Departmental Sales					
Week Ending January 18, 19--					
Department	Salesman A	B	C	D	Total
Men's Suits	\$2,586	\$1,428	\$2,059	\$1,683	\$
Men's Shoes	1,275	1,856	2,407	2,895	
Men's Ties	842	4,377	3,926	5,681	
Men's Shirts	1,594	1,685	1,768	949	
Men's Jewelry	4,627	6,714	2,085	1,428	
Accessories	1,086	923	654	235	
Total	\$	\$	\$	\$	\$

3.

Sales Record							
Department A				Week Ending May 10, 19--			
Employee	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Total
R. Burns	\$ 96.73	\$112.85	\$145.16	\$109.12		\$127.56	\$
P. Drake		104.78	136.59	96.08	\$113.67	135.03	
T. Garland	89.56	95.27	128.83		104.82	127.58	
C. Howland	98.68		156.07	124.95	138.33	149.90	
K. Lund	95.25	109.04		117.56	127.98	132.65	
Total	\$	\$	\$	\$	\$	\$	\$

4.

Sales Record							
Department A				Week Ending May 10, 19--			
Employee	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Total
T. Arthur	\$ 45.26		\$ 83.95	\$ 76.08	\$ 49.74	\$159.60	\$
B. Cramer	24.75	\$ 46.58		35.75	78.62	98.31	
A. Graham	46.34	79.37	82.64		91.39	206.80	
H. Jackson		44.85	77.36	95.99	76.17	132.86	
C. Williams	33.98	35.55	68.98	76.57		183.69	
Total	\$	\$	\$	\$	\$	\$	\$

Unit VIII - Numerical Clerical Records
Lesson 1 - Using the Electronic Calculator

ASSIGNMENT SHEET 3: Horizontal and Vertical Addition

Directions: Add the columns and rows. Prove the accuracy of your work.

MONTHLY SALES OF LEADING CITIES

MONTH	BOSTON	NEW YORK	CHICAGO	SAN FRANCISCO	TOTAL
January	\$5,960.00	\$17,234.50	\$13,654.30	\$6,925.67	
February	7,392.60	12,364.20	9,035.42	8,235.96	
March	6,932.20	13,367.54	10,123.46	7,932.20	
April	7,945.50	15,234.25	11,921.38	7,375.56	
May	8,183.19	17,069.12	13,028.00	9,624.86	
June	7,694.00	13,861.90	8,239.50	13,028.00	
July	7,474.50	14,919.00	12,123.78	6,432.55	
August	9,124.64	18,344.26	11,493.90	8,291.45	
September	8,122.96	16,512.00	12,630.24	8,820.00	
October	7,143.33	15,234.60	11,809.47	7,600.00	
November	7,369.04	14,129.00	11,262.96	7,045.50	
December	6,169.23	12,740.00	9,544.22	5,921.60	
Totals					

Unit VIII - Numerical Clerical Records
Lesson 1 - Using the Electronic Calculator

ASSIGNMENT SHEET 4: Verifying Checking Records

Directions: Verify the accuracy of this check register by subtracting all payments and adding all deposits.

page 1

RECORD ALL CHARGES OR CREDITS THAT AFFECT YOUR ACCOUNT									
NUMBER	DATE	DESCRIPTION OF TRANSACTION	PAYMENT/DEBIT (-)	✓ T	FEE (IF ANY) (-)	DEPOSIT/CREDIT (+)	BALANCE		
							\$	1491	85
5598	7/1	Sentinel Newspapers	25 00					1466	85
5599		Dutch Enterprises	149 23					1317	62
5600		Ward's	32 93					1284	69
5601		Belo Tel. Co.	126 92					1107	67
5602		Sander's Hardware	45 41					1062	26
5603		Dalton's Florist	29 95			900 00		1932	31
5604	7/2	Tex. Bar-B-Q	16 92					1915	39
5605		Sinclair's Inc.	156 88					1758	51
5606		Riverside Lbr. Co.	47 49					1711	02
5607		A-1 Drugstore	90 15					1620	87
5608		Campus Inn	46 81					1574	06
5609		Dept. of Revenue	26 50					1547	56
5610		Leonard Motor Co.	317 51			500 80		1730	85

If there is a correction to be made, correct the "running balance" at the point of the correction and change the balance at the end of the page.
Continue with page 2.

RECORD ALL CHARGES OR CREDITS THAT AFFECT YOUR ACCOUNT

page 2

NUMBER	DATE	DESCRIPTION OF TRANSACTION	PAYMENT/DEBIT		✓ T	FEE (IF ANY) (-)	DEPOSIT/CREDIT (+)	BALANCE	
			(-)						
5611	7/3	Coach's Supply	124	86					
5612		Lamp & Fan, Inc.	132	23					
5613		Pioneer Market	76	18			363	18	
5614		Texaco, Inc.	118	75					
5615		City Collector	106	73					
5616		Lyston's	62	90					
5617		Apache, Inc.	29	15					
5618		Louella's	172	91					
5619		Greenhouse Florist	37	80			385	07	
5620		Casual Clothes, Inc.	218	07					
5621	7/5	Kay Shelton	159	65					
5622		Ramada Inn	56	22			178	31	
5623		Missouri Utilities	189	75					

Unit VIII - Numerical Clerical Records
Lesson 1 - Using the Electronic Calculator

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet 1:

Part 1

I. 1.	4,598	III. 31.	2066.54
2.	5,604	32.	2215.18
3.	5,017	33.	1354.92
4.	5,596	34.	1323.43
5.	4,323	35.	1623.41
6.	5,771	36.	5320.00
7.	5,106	37.	1481.49
8.	4,844	38.	1765.07
9.	3,798	39.	2322.60
10.	4,202	40.	1691.89
11.	5,499	41. S	338.72
12.	4,381	41. T	1,492.24
13.	5,313	42. S	230.08
14.	5,705	42. T	1,832.09
15.	6,739	43. S	2,362.86
16.	2,441	43. T	3,900.59
17.	1,030	44. S	1,953.91
18.	906	44. T	3,953.48
19.	1,375	45. S	403.23
20.	2,838	45. T	2,550.21
21.	2,169	46. S	28,271.68
II. 22.	230 CR or -230	46. T	91,907.02
23.	470 CR	47. S	55,100.16
24.	32 CR	47. T	94,822.78
25.	151 CR	48. S	23,523.11
26.	133 CR	48. T	89,387.37
27.	1,966 CR	49. S	77,162.93
28.	12,697 CR	49. T	110,447.95
29.	11,331 CR	50. S	61,572.76
30.	16,710 CR	50. T	102,906.57

(Student will check with instructor for timed evaluation.)

Part 2

1.		2219.33	29.		5171.14
2.		414.38	30.		4753.70
3.		1472.18	31.		212.40
4.		2202.58	32.		158.40
5.		1011.21	33.		111.88
6.	S	1164.19	34.		174.25
6.	T	1171.34	35.		656.93
7.	S	680.24	36.		94.60
7.	T	1189.25	37.		144.17
8.	S	953.46	38.		103.45
8.	T	3027.63	39.		171.50
9.	S	13.57	40.		513.72
9.	T	912.54	41.		819.21
10.	S	390.35	42.		6018.90
10.	T	817.79	43.		10,777.98
11.		13.10	44.		2361.06
12.		22.80	45.		8826.85
13.		33.38	46.		8017.07 CR
14.		5.00	47.		971.14 CR
15.		11.03	48.		2301.63 CR
16.		849.60	49.		2793.38 CR
17.		5577.10	50.		1543.17 CR
18.		3374.24			
19.		4702.39			
20.		18,465.23			
21.		9871.39			
22.		5501.68 CR			
23.		1309.72 CR			
24.		4241.35 CR			
25.		5726.83 CR			
26.		4174.21			
27.		6234.16			
28.		5513.96			

Assignment Sheet 2

1. Horizontal

7,981
9,937
9,310
9,085
9,869
9,102
55,284

Vertical

10,846
11,114
11,858
11,186
10,280
55,284

2. Horizontal

7,756
8,433
14,826
5,996
14,854
2,898
54,763

Vertical

12,010
16,983
12,899
12,871
54,763

3. Horizontal

591.42
586.15
546.06
667.93
582.48
2,974.04

Vertical

380.22
421.94
566.65
447.71
484.80
672.72
2,974.04

4. Horizontal

414.63
284.01
506.54
427.23
398.77
2,031.18

Vertical

150.33
206.35
312.93
284.39
295.92
781.26
2,031.18

Assignment Sheet 3:

Horizontal

Jan. 43,774.47
Feb. 37,028.18
Mar. 38,355.40
April 42,476.69
May 47,905.17
June 42,823.40
July 40,949.83
Aug. 47,254.25
Sept. 46,085.20
Oct. 41,787.40
Nov. 39,806.50
Dec. 34,375.05
502,621.54

Vertical

89,511.19
181,010.37
134,866.63
97,233.35
502,621.54

Assignment Sheet 4:

Page 1 - Corrected Amount \$1,780.95

Error - check #5601 to Bel Tel. Co.

page 1

NUMBER	DATE	DESCRIPTION OF TRANSACTION	PAYMENT/DEBIT 1-2	✓ T	FOR OF AMT. 1-2	DEPOSIT/CREDIT 1-2	BALANCE
							1491 85
5598	7/1	Sentinel Newspapers	25 00				1466 85
5599		Dutch Enterprises	149 23				1317 62
5600		Ward's	32 93				1284 69
5601		Bel. Tel. Co.	126 92				1157 77
5602		Sander's Hardware	45 41				1112 36
5603		Dalton's Florist	29 95		900 00		1932 31
5604	7/2	Tex. Bar-B-Q.	16 82				1915 49
5605		Sinclair, Inc.	156 88				1758 61
5606		Riverside Lbr. Co.	47 42				1711 19
5607		A-1 Drugstore	90 15				1620 04
5608		Campus Inn	46 81				1573 23
5609		Dept. of Revenue	26 50				1546 73
5610		Leopard Motor Co.	317 51		500 80		1780 95

Page 2 - Ending Balance \$1,222.31

RECORD ALL CHARGES OR CREDITS THAT AFFECT YOUR ACCOUNT

page 2

NUMBER	DATE	DESCRIPTION OF TRANSACTION	PAYMENT/DEBIT 1-2	✓ T	FOR OF AMT. 1-2	DEPOSIT/CREDIT 1-2	BALANCE
							1780 95
5611	7/3	Coach's Supply	124 86				1656 09
5612		Lamp & Fan, Inc.	132 23				1523 86
5613		Pioneer Market	76 18		363 18		1887 04
5614		Tesaco, Inc.	118 75				1768 29
5615		City Collector	106 73				1661 56
5616		Lyston's	62 80				1598 76
5617		Apache, Inc.	29 15				1569 61
5618		Louella	172 91				1396 70
5619		Greenhouse Florist	37 80		385 07		1781 77
5620		Casual Clothes, Inc.	218 07				1563 70
5621	7/5	Kay Shelton	189 65				1374 05
5622		Canada Bros	56 22		172 31		1520 08
5623		Missouri Utilities	189 75				1330 33

Unit VIII - Numerical Clerical Records
Lesson 1 - Using the Electronic Calculator

POSTTEST 1

Directions: Complete as many problems as possible in three (3) minutes. Each column should be readded until your total matches the column total on this page. In order to achieve 100 strokes a minute, you should complete six (6) columns correctly. Please turn in the adding machine tape to your instructor.

1	2	3	4	5
12.53	215.20	125.12	51.00	451.23
24.00	9.45	46.43	671.70	9.52
3.05	435.20	313.50	9.72	12.85
29.76	1.63	514.68	6.34	27.80
438.33	566.84	14.68	8.58	8.89
563.65	71.68	62.18	.28	90.66
815.30	4.97	72.39	345.12	678.63
79.13	897.91	85.94	6.84	15.42
4.58	4.98	20.75	214.31	323.90
<u>96.21</u>	<u>7.32</u>	<u>99.25</u>	<u>9.54</u>	<u>4.51</u>
<u>2,066.54</u>	<u>2,215.18</u>	<u>1,354.92</u>	<u>1,323.43</u>	<u>1,623.41</u>

6	7	8	9	10
961.20	238.47	893.66	895.91	917.10
573.03	49.23	9.80	41.06	121.03
684.12	784.19	437.64	678.75	5.46
815.46	12.47	9.52	458.19	88.94
784.04	68.91	.18	12.47	52.62
497.56	162.71	5.68	35.12	345.71
292.20	18.92	165.47	27.32	68.50
198.37	53.75	23.71	121.94	6.06
318.67	86.12	6.94	51.74	9.15
<u>195.35</u>	<u>6.72</u>	<u>212.47</u>	<u>.10</u>	<u>77.32</u>
<u>5,320.00</u>	<u>1,481.49</u>	<u>1,765.07</u>	<u>2,322.60</u>	<u>1,691.89</u>

Unit VIII - Numerical Clerical Records
Lesson 1 - Using the Electronic Calculator

POSTTEST 2

Directions: Complete as many problems as possible in three (3) minutes. Each column should be readded until your total matches the column total on this page. In order to achieve 100 strokes a minute, you should complete six (6) columns correctly. Please turn in the adding machine tape to your instructor.

1	2	3	4	5
713.24	215.20	125.12	151.00	451.23
69.01	678.15	46.43	671.70	249.52
103.05	435.20	313.50	235.89	512.85
29.76	631.63	514.68	641.02	127.80
438.33	566.84	14.68	359.87	378.89
324.80	71.68	62.18	145.09	890.66
815.30	184.55	72.39	345.12	678.63
79.13	897.91	85.94	276.84	915.42
224.58	134.98	20.75	214.31	323.90
<u>96.21</u>	<u>457.32</u>	<u>99.25</u>	<u>639.54</u>	<u>104.51</u>
<u>2,289.41</u>	<u>4,273.46</u>	<u>1,354.92</u>	<u>3,680.38</u>	<u>4,633.41</u>

6	7	8	9	10
961.20	238.47	893.66	895.91	917.10
573.03	549.23	209.80	941.06	121.03
684.12	784.19	437.64	678.75	205.46
815.46	612.47	139.52	458.19	188.94
784.04	768.91	456.18	712.47	352.62
497.56	162.71	705.68	635.12	345.71
292.20	818.92	165.47	527.32	468.50
198.37	453.75	823.71	121.94	506.06
318.67	386.12	906.94	351.74	169.15
<u>195.35</u>	<u>126.72</u>	<u>212.47</u>	<u>124.10</u>	<u>988.32</u>
<u>5,320.00</u>	<u>4,901.49</u>	<u>4,951.07</u>	<u>5,446.60</u>	<u>4,262.89</u>

Unit VIII - Numerical Clerical Records
Lesson 1 - Using the Electronic Calculator

POSTTEST KEYS 1 AND 2

Evaluate student performance based upon the following criteria:

1. Were at least 6 columns completed with 100 percent accuracy within the three-minute time limit as evidenced by the student's adding machine tapes?

Retest if necessary.

Unit VIII - Numerical Clerical Records
Lesson 2 - Math Review

LESSON OBJECTIVE

Given 20 problems, the student will be able to change fractions to decimals, change percentages to decimals, and change decimals to percentages with 90 percent accuracy within 10 minutes.

SUGGESTED ACTIVITIES

I. Instructor

- A. Distribute objective and information sheets.
- B. Stress the importance of placing decimals correctly by demonstrating on chalkboard. (eg. \$1.00 and \$100)
- C. Stress the importance of changing fractions to decimals since calculators cannot work with fractions.
- D. Have students complete the Assignment Sheet.
- E. Give posttest.

II. Student

- A. Study Objective and Information Sheets.
- B. Complete Assignment Sheet.
- C. Take posttest.

INSTRUCTIONAL MATERIALS

I. Objective Sheet

II. Information Sheet

III. Handout

- A. HO 1: Table of Decimal Equivalents

IV. Assignment Sheet and Answers

- A. AS 1: Changing Decimals, Percentages, and Fractions

V. Posttest and Key

Unit VIII - Numerical Clerical Records
Lesson 2 - Math Review

INFORMATION SHEET

I. Procedure for Changing Percentages to Decimals

- A. Assume there is a decimal point at the end of a "whole" number.
- B. Move the decimal two places to the left.
- C. If you don't have two places, add a zero at the beginning of the number to make two places.

II. Changing Decimals to Percentages

- A. Reverse the procedure above.
- B. Move the decimal two places to the right.
- C. If you don't have two places, add a zero at the end of the number.
- D. You may have to write down answers as percentages on an answer sheet. When the answer is given as a decimal on the calculator, use the procedure for changing decimals to percentages.

III. Changing Fractions to Decimals

- A. Fractions must always be changed to decimals when working a problem on the calculator. (The calculator has the ability to work with decimals but you cannot enter a fraction in the machine.)
- B. You may change a fraction to a decimal equivalent by using a table of decimal equivalents or by using division.
- C. To change the fraction $\frac{1}{2}$ to a decimal equivalent by using division, you divide the numerator (top number) by the denominator (bottom number).

Example:
$$\begin{array}{r} .50 \\ 2 \overline{) 1.00} \end{array}$$

- D. You can see that the fraction $\frac{1}{2}$, 50% and .50 are all different ways of expressing the same amount.

TABLE OF DECIMAL EQUIVALENTS

The figures across the top of the table represent the numerators of frequently used fractions. The figures in the first column to the left represent the denominators. To find the decimal equivalent of the fraction, locate the vertical column headed by the numerator and the horizontal row following the denominator. Where the vertical and horizontal rows intersect is the decimal equivalent.

NUMERATORS

	1	2	3	4	5	6	7	8
3rds	.3333	.6667						
4ths	.25	.5	.75					
5ths	.2	.4	.6	.8				
6ths	.1667	.3333	.5	.6667	.8333			
7ths	.1429	.2857	.4286	.5714	.7143	.8571		
8ths	.125	.25	.375	.5	.625	.75	.875	
9ths	.1111	.2222	.3333	.4444	.5556	.6667	.7778	.8889
10ths	.1	.2	.3	.4	.5	.6	.7	.8
11ths	.0909	.1818	.2727	.3636	.4545	.5455	.6364	.7273
12ths	.0833	.1667	.25	.3333	.4167	.5	.5833	.6667

Unit VIII - Numerical Clerical Records
Lesson 2 - Math Review

ASSIGNMENT SHEET 1: Changing Decimals, Percentages, and Fractions

I. Change the following percentages to decimals:

- | | | |
|--------|------------|---------|
| 1. 75% | 6. 13% | 11. 50% |
| 2. 5% | 7. 123% | 12. 25% |
| 3. 28% | 8. 89% | 13. 2% |
| 4. 16% | 9. 32½% | 14. 10% |
| 5. 9% | 10. 6 3/4% | 15. 3½% |

II. Change the following decimals to percentages:

- | | | |
|---------|----------|-------------|
| 1. .25 | 6. .1350 | 11. .872014 |
| 2. .50 | 7. .375 | 12. .0213 |
| 3. .2 | 8. .6275 | 13. .75 |
| 4. .10 | 9. .03 | 14. .16 |
| 5. 1.00 | 10. 2.12 | 15. .01 |

III. Change the following fractions to decimal equivalents:

- | | |
|-------------|--------------|
| 1. $5/24 =$ | 8. $3/7 =$ |
| 2. $1/50 =$ | 9. $6/12 =$ |
| 3. $1/15 =$ | 10. $2/3 =$ |
| 4. $1/20 =$ | 11. $4/6 =$ |
| 5. $1/6 =$ | 12. $1/12 =$ |
| 6. $2/11 =$ | 13. $7/8 =$ |
| 7. $5/12 =$ | 14. $8/9 =$ |

Unit VIII - Numerical Clerical Records
Lesson 2 - Math Review

ANSWERS TO ASSIGNMENT SHEET

Assignment Sheet 1

I.

1. .75	6. .13	11. .50
2. .05	7. 1.23	12. .25
3. .28	8. .89	13. .02
4. .16	9. $.32\frac{1}{4}$ or .325	14. .10 or .1
5. .09	10. $.06\frac{3}{4}$ or .0675	15. $.03\frac{1}{4}$ or .0325

II.

1. 25%	6. 13.5% or 13 $\frac{1}{2}$ %	11. 87.2014%
2. 50%	7. 37.5% or 37 $\frac{1}{2}$ %	12. 2.13%
3. 20%	8. 62.75% or 62 $\frac{3}{4}$ %	13. 75%
4. 10%	9. 3%	14. 16%
5. 100%	10. 212%	15. 1%

III.

1. .21	8. .4286
2. .02	9. .5
3. .07	10. .6667
4. .05	11. .6667
5. .1667	12. .0833
6. .1818	13. .875
7. .4167	14. .8889

Unit VIII - Numerical Clerical Records
Lesson 2 - Math Review

POSTTEST

I. Directions: Change the following fractions or percentages to their decimal equivalents.

1. $\frac{3}{4} =$

9. $7\frac{1}{2}\% =$

2. $72\% =$

10. $13\frac{3}{4}\% =$

3. $\frac{1}{5} =$

11. $\frac{1}{2} =$

4. $32\frac{1}{2}\% =$

12. $1\% =$

5. $3\frac{1}{4}\% =$

13. $5\% =$

6. $\frac{1}{10} =$

14. $\frac{1}{4} =$

7. $113\% =$

15. $6\frac{1}{2}\% =$

8. $\frac{1}{3} =$

II. Directions: Use your calculator to change the fractions to decimal equivalents. Carry your answers out to four decimal places.

1. $\frac{1}{6} =$

2. $\frac{8}{9} =$

3. $\frac{2}{11} =$

4. $\frac{7}{8} =$

5. $\frac{3}{7} =$

Unit VIII - Numerical Clerical Records
Lesson 2 - Math Review

POSTTEST KEY

I.

- | | | | |
|----|--------------|-----|-----------|
| 1. | .75 | 9. | .075 |
| 2. | .72 | 10. | .1375 |
| 3. | .2 or .20 | 11. | .5 or .50 |
| 4. | .325 | 12. | .01 |
| 5. | .0325 | 13. | .05 |
| 6. | .1 or .10 | 14. | .25 |
| 7. | 1.13 | 15. | .065 |
| 8. | .33 or .3333 | | |

II.

- | | |
|----|---------------|
| 1. | .1667 |
| 2. | .8889 |
| 3. | .1818 |
| 4. | .875 or .8750 |
| 5. | .4286 |

Unit VIII - Numerical Clerical Records
Lesson 3 - Terms That Require Conversion

LESSON OBJECTIVE

Given 20 problems involving C, M, dozen, and gross, the student will be able to convert the items to the proper decimal equivalents with 90 percent accuracy within 10 minutes.

SUGGESTED ACTIVITIES

I. Instructor

- A. This lesson should be covered along with the math review.
- B. Objective and information sheets should be distributed to students.
- C. Stress importance of decimals when working with calculators.
- D. Have students complete Assignment Sheet.
- E. Give posttest.

II. Student

- A. Study and discuss objective and information sheets.
- B. Complete Assignment Sheet.
- C. Take posttest.

INSTRUCTIONAL MATERIALS

I. Objective Sheet

II. Information Sheet

III. Assignment Sheet and Answers

- A. AS 1: Conversions

IV. Posttest and Key

Unit VIII - Numerical Clerical Records
Lesson 3 - Terms That Require Conversion

INFORMATION SHEET

I. C = 100

- A. C stands for 100 in Roman Numerals.
- B. When a price is given and a "C" is placed behind the price, that price is for 100 items. If your order is for a different number of items, the number of items must be changed to a decimal equivalent of 100 before the amount of the purchase can be figured.
 - 1. This can be accomplished by dividing the items by 100.
 - 2. An easy way to do this is to move the decimal from the end of a whole number two places to the left.
 - 3. Example: 350 divided by 100 = 3.50; 78 divided by 100 = .78

II. M = 1000

- A. M stands for 1000 in Roman Numerals.
- B. When a price is given and an "M" is placed behind the price, that price is for 1000 items. If your order is for a different number of items, the number of items must be changed to a decimal equivalent of 1000 before the amount of the purchase can be figured.
 - 1. This can be accomplished by dividing the items by 1000.
 - 2. An easy way to do this is to move the decimal from the end of a whole number three places to the left.
 - 3. Example: 575 divided by 1000 = .575; 8725 divided by 1000 = 8.725

III. Dozen = 12

- A. Since there are 12 items in a dozen, divide the items by 12 when a price is given per dozen.
- B. If the purchase price is listed by the dozen and you are purchasing "by the dozen," no conversion is necessary.

IV. Gross = 144

- A. There are twelve dozen in a gross.
- B. When you are purchasing items and the price is given per gross, divide the items by 144 to convert to a decimal equivalent.
- C. If the purchase price is listed per gross and you are purchasing "by the gross," no conversion is necessary.

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Unit VIII - Numerical Clerical Records
Lesson 3 - Terms That Require Conversion

ASSIGNMENT SHEET 1: Conversions

Directions: Convert the following items to a decimal equivalent. Assume prices are given for those units indicated in parentheses.

- | | |
|----------------------------|-----------------------------|
| 1. 785 (C) = | 11. 18 (price per dozen) = |
| 2. 288 (price per gross) = | 12. 17, 230 (M) = |
| 3. 72 (price per dozen) = | 13. 648 (price per gross) = |
| 4. 725 (C) = | 14. 500 (C) = |
| 5. 8025 (M) = | 15. 36 (price per dozen) = |
| 6. 30 (price per dozen) = | 16. 923 (M) = |
| 7. 72 (price per gross) = | 17. 50 (C) = |
| 8. 575 (C) = | 18. 750 (M) = |
| 9. 60 (price per dozen) = | 19. 75 (C) = |
| 10. 10,750 (C) = | 20. 10,750 (M) = |

Unit VIII - Numerical Clerical Records
Lesson 3 - Terms That Require Conversion

ANSWERS TO ASSIGNMENT SHEET

1. 7.85
2. 2 or 2.0
3. 6
4. 7.25
5. 8.025
6. 2.5
7. .5
8. 5.75
9. 5
10. 107.50
11. 1.5
12. 17.230 or 17.23
13. 4.5
14. 5 or 5.00
15. 3
16. .923
17. .5 or .50
18. .750 or .75
19. .75
20. 10.750

Unit VIII - Numerical Clerical Records
Lesson 3 - Terms That Require Conversion

POSTTEST

Directions: Change the following items to a decimal equivalent. Assume prices are given for those units indicated in parentheses.

1. 60 (price per dozen) =
2. 120 (price per dozen) =
3. 576 (price per gross) =
4. 216 (price per gross) =
5. 575 (C) =
6. 600 (C) =
7. 144 (price per gross) =
8. 9225 (C) =
9. 107,350 (C) =
10. 650 (M) =
11. 500 (M) =
12. 20,000 (M) =
13. 20,000 (C) =
14. 42 (price per dozen) =
15. 875 (M) =
16. 17,125 (M) =
17. 78 (price per dozen) =
18. 20 (C) =
19. 107,350 (M) =
20. 350 (M) =

Unit VIII - Numerical Clerical Records
Lesson 3 - Terms That Require Conversion

POSTTEST KEY

1. 5
2. 10
3. 4
4. 1.5
5. 5.75
6. 6 or 6.00
7. 1
8. 92.25
9. 1073.50
10. .650
11. .500 or .5
12. 20 or 20.000
13. 200 or 200.00
14. 3.5
15. .875
16. 17.125
17. 6.5
18. .2 or .20
19. 107.350
20. .350

Unit VIII - Numerical Clerical Records
Lesson 4 - Solving Problems with an Electronic Calculator

LESSON OBJECTIVE

Given an electronic calculator, the student will be able to install a new paper tape, place working papers properly, and complete 50 problems using multiplication, division, decimals, fractions, and percentages with 90 percent accuracy within 30 minutes.

SUGGESTED ACTIVITIES

I. Instructor

- A. This section should be covered following the lessons on math review.
- B. Objective and information sheets should be distributed to students.
- C. Instructor should demonstrate how to install paper tape.
- D. Instructor should review proper placement of working papers.
- E. Instructor should demonstrate:
 - 1. Multiplication process
 - 2. Division process
 - 3. Decimal key (explain roundoff procedure)
 - 4. Percent key and use of decimals with percent key as this may vary with machines
 - 5. Accumulate key--how to use grand total
 - 6. Use of negative sign (- sign to left of 1 key) for subtracting discounts
- F. Assign Assignment Sheets 1 and 2.
- G. Give posttest. Tests should be timed and should begin with the student putting tape in the machine.

II. Student

- A. Study objective and information sheets.
- B. Complete Assignment Sheets.
- C. Take posttest.

INSTRUCTIONAL MATERIALS

I. Objective Sheet

II. Information Sheet

III. Assignment Sheets and Answers

A. AS 1: Calculator Problem Set I

B. AS 2: Calculator Problem Set II

IV. Posttest and Key

Unit VIII - Numerical Clerical Records
Lesson 4 - Solving Problems With an Electronic Calculator

INFORMATION SHEET

- I. Following instructor demonstration, use the manual for your calculator to become more familiar with the features of the machine.
 - A. Location of keys
 - B. Correct name of keys
- II. Practice inserting paper tape into the calculator.
 - A. If you experience difficulty, check the manual for further instructions.
 - B. If you still experience difficulty, ask the instructor for assistance.
- III. Check the tape to verify accuracy in multiplication, division, decimals, and percentages.
 - A. Check the numbers.
 - B. Check placement of decimals.
 - C. Check "signs" to see if proper math process has been used.

Unit VIII - Numerical Clerical Records
Lesson 4 - Using the Electronic Calculator

ASSIGNMENT SHEET 1: Calculator Problem Set I

Directions: Complete these 50 problems using multiplication, division, decimals, and the % key.

- I. 1. 25 X 77 =
2. 312 X 62 =
3. 129 X 540 =
4. 2860 X 367 =
5. 5457 X 852 =
6. 273 X 3085 =
7. 445 X 539 =

II. Carry answers out to one decimal place.

8. 704 X 16.2 =
9. 849 X 37.7 =
10. 26.5 X 53 =
11. 85.6 X 97.2 =
12. 73.8 X 29.6 =
13. 5.24 X 35.4 =
14. 994 X 7.62 =

III. Carry answers out to two decimal places.

15. 45.43 X 129 =
16. 617 X 2.64 =
17. 155.3 X 8.31 =
18. 60.72 X 95.4 =
19. 101.4 X 7.8 =
20. 8.125 X 10.6 =
21. 285.47 X 30.3 =

IV. Carry answers out to four decimal places

22.	88.65	X	14.77	=
23.	259.38	X	4.532	=
24.	657.41	X	.1544	=
25.	.0938	X	.7416	=
26.	12,152	X	.1181	=
27.	534.6	X	5.714	=
28.	.397	X	.978	=
29.	129.72	X	53.02	=
30.	150.64	X	7.535	=

V. Carry answers out to three decimal places

31.	1,751	+	534.35	=
32.	35.25	+	8.44	=
33.	215.782	+	54.103	=
34.	1,126.15	+	330.146	=
35.	783	+	92.5	=
36.	6.008	+	88	=
37.	485.6	+	7.004	=
38.	4.5603	+	24	=
39.	39.5	+	144	=
40.	.2448	+	17.321	=

VI. Change fractions to decimal equivalents and multiply. Carry answers out to two decimal places

41.	1/2	X	1/4	=
42.	3/10	X	7/10	=
43.	1 1/5	X	1/2	=

44.	$1 \frac{9}{10}$	X	$\frac{7}{8}$	=
45.	$7 \frac{1}{3}$	X	31	=
46.	$3 \frac{1}{4}$	X	$5 \frac{1}{8}$	=
47.	$\frac{7}{12}$	X	$8 \frac{1}{2}$	=
48.	$6 \frac{4}{5}$	X	$\frac{8}{9}$	=
49.	$9 \frac{5}{8}$	X	3	=
50.	$4 \frac{1}{2}$	X	$6 \frac{3}{4}$	=

Unit VIII - Numerical Clerical Records
Lesson 4 - Using the Electronic Calculator

ASSIGNMENT SHEET 2: Calculator Problem Set II

Directions: Figure the discounts and net amounts for the following problems.

<u>Gross Amount</u>	<u>% Of Discount</u>	<u>Discount</u>	<u>Net Amount</u>
1. \$870.00	35%	_____	_____
2. 1440.00	45%	_____	_____
3. 2670.80	25%	_____	_____
4. 5415.50	37 1/2%	_____	_____
5. 745.00	42%	_____	_____
6. 3790.00	30%	_____	_____
7. 947.50	17 1/2%	_____	_____
8. 1094.60	22 1/2%	_____	_____
9. 6355.00	15%	_____	_____
10. 2545.00	26%	_____	_____
11. 970.20	10%	_____	_____
12. 884.60	23%	_____	_____
13. 1370.00	5%	_____	_____
14. 2470.00	4%	_____	_____
15. 6210.00	5 1/2%	_____	_____
16. 825.90	15%	_____	_____
17. 1350.00	7 1/2%	_____	_____
18. 3812.00	10%	_____	_____
19. 760.00	5 1/4%	_____	_____
20. 1050.00	12%	_____	_____

Unit VIII - Numerical Clerical Records
Lesson 4 - Using the Electronic Calculator

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet 1:

1. 1,925	26. 1,435.1512
2. 19,344	27. 3,054.7044
3. 69,660	28. .3883
4. 1,049,620	29. 6,877.7544
5. 4,649,364	30. 1,135.0724
6. 842,205	31. 3.277
7. 239,855	32. 4.177
8. 11,404.8	33. 3.988
9. 32,007.3	34. 3.411
10. 1,404.5	35. 8.465
11. 8,320.3	36. .068
12. 2,184.5	37. 69.332
13. 185.5	38. .190
14. 7,574.3	39. .274
15. 5,860.47	40. .014
16. 1,628.88	41. .13
17. 1,290.54	42. .21
18. 5,792.69	43. .60
19. 790.92	44. 1.66
20. 86.13	45. 227.23 or 227.32
21. 8,649.74	46. 16.66
22. 1,309.3605	47. 4.96
23. 1,175.5102	48. 6.04
24. 101.5041	49. 28.88
25. .0696	50. 30.38

Assignment Sheet 2:

Discount	Net Amount
1. 304.50	565.50
2. 648.00	792.00
3. 667.70	2003.10
4. 2030.81	3384.69
5. 312.90	432.10
6. 1137.00	2653.00
7. 165.81	781.69
8. 246.29	848.31
9. 953.25	5401.75
10. 661.70	1883.30
11. 97.02	873.18
12. 203.46	681.14
13. 68.50	1301.50
14. 98.80	2371.20

Discount

15. 341.55
16. 123.89
17. 101.25
18. 381.20
19. 39.90
20. 126.00

Net Amount

5868.45
702.01
1248.75
3430.80
720.10
924.00

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Unit VIII - Numerical Clerical Records
Lesson 4 - Using the Electronic Calculator

POSTTEST

I. After inserting tape into the machine, complete the following problems. When working with fractions or decimals, round answers to 2 decimal places.

- | | |
|--|------------------------------------|
| 1. $4,269 \times 191 =$ _____ | 16. $.85 \times .7 =$ _____ |
| 2. $568 \times 102 =$ _____ | 17. $72.441 \times 5.06 =$ _____ |
| 3. $8,804 \times 135 =$ _____ | 18. $376.69 \times 100.31 =$ _____ |
| 4. $439 \times 12 =$ _____ | 19. $808.3 \times .829 =$ _____ |
| 5. $1,593 \times 8 =$ _____ | 20. $748.62 \times 47.13 =$ _____ |
| 6. $3/5 \times 4 \frac{1}{2} =$ _____ | 21. $85 \times \$5.68 =$ _____ |
| 7. $7/8 \times 3 \frac{3}{4} =$ _____ | 22. $45 \times \$4.49 =$ _____ |
| 8. $14 \frac{1}{2} \times 6 \frac{1}{4} =$ _____ | 23. $90 \times \$5.50 =$ _____ |
| 9. $101 \frac{4}{5} \times 16 \frac{3}{4} =$ _____ | 24. $65 \times \$5.85 =$ _____ |
| 10. $18 \frac{1}{2} \times 21 \frac{2}{5} =$ _____ | 25. $25 \times \$1.27 =$ _____ |
| 11. $14.34 \times 6.98 =$ _____ | 26. $24 \times \$.28 =$ _____ |
| 12. $31.154 \times 7.22 =$ _____ | 27. $8 \times \$4.39 =$ _____ |
| 13. $463.19 \times 227.4 =$ _____ | 28. $6 \times \$4.89 =$ _____ |
| 14. $797.18 \times 9.949 =$ _____ | 29. $8 \times \$2.95 =$ _____ |
| 15. $31,582.5 \times 11.2 =$ _____ | 30. $9 \times \$3.75 =$ _____ |

II. Find the amount of discount and net amount:

Gross Amount	Discount Rate	Discount	Net Amount
31-32 \$423.00	12 1/2%		
33-34 \$268.00	25%		

Gross Amount	Discount Rate	Discount	Net Amount
35-36 \$1560.10	12%		
37-38 \$ 995.72	2%		
39-40 \$ 166.10	15%		

III. Division--Round answers to 2 decimal places

41. $25,699 \div 2,202 =$ _____

42. $11,681 \div 1,028 =$ _____

43. $93,832 \div 3,681 =$ _____

44. $67,595 \div 1,439 =$ _____

45. $483.76 \div 47.1 =$ _____

46. $773.19 \div 61.94 =$ _____

47. $617.88 \div 326.64 =$ _____

48. $1,851.6 \div 8.57 =$ _____

49. $18 \frac{1}{2} \div \frac{1}{4} =$ _____

50. $602 \frac{3}{4} \div 1 \frac{1}{2} =$ _____

Unit VIII - Numerical Clerical Records
Lesson 4 - Using the Electronic Calculator

POSTTEST KEY

I.	1.	815,379
	2.	57,936
	3.	1,188,540
	4.	5,268
	5.	12,744
	6.	2.7
	7.	3.28
	8.	90.63
	9.	1,705.15
	10.	395.90
	11.	100.09
	12.	224.93
	13.	105,329.41
	14.	7,931.14
	15.	353,724
	16.	.60
	17.	.366.55
	18.	37,783.77
	19.	670.08
	20.	35,282.46
	21.	\$ 482.80
	22.	\$ 202.05
	23.	\$ 495.00
	24.	\$ 380.25
	25.	\$ 31.75
	26.	\$ 6.72
	27.	\$ 35.12
	28.	\$ 29.34
	29.	\$ 23.60
	30.	\$ 33.75
	31.	\$ 52.88
	32.	\$ 370.12
	33.	\$ 67.00
	34.	\$ 201.00
	35.	\$ 187.21
	36.	\$ 1,372.89
	37.	\$ 19.91
	38.	\$ 975.81
	39.	\$ 24.92
	40.	\$ 141.18
	41.	11.67
	42.	11.36
	43.	25.49
	44.	46.97
	45.	10.27
	46.	12.48
	47.	1.89
	48.	216.06
	49.	74
	50.	401.83

Unit VIII - Numerical Clerical Records
Lesson 5 - Extending Invoices

LESSON OBJECTIVE

Given an invoice to be completed, the student will "extend" the invoice amounts, figure discount, sales tax, and the net total within 10 minutes with 90 percent accuracy.

SUGGESTED ACTIVITIES

I. Instructor

- A. This lesson will review all processes used in the first four lessons.
- B. Distribute objective and information sheets to students.
- C. Demonstrate extending amounts on an invoice while the students perform the procedure on the calculator.
 - 1. Set decimal indicator.
 - 2. Set round off key. (R/O key)
 - 3. Use accumulate or grand total key when appropriate.
 - 4. Multiply items times price.
 - 5. Convert items to decimal equivalent when necessary.
 - 6. Add grand total of extension column.
 - 7. Figure and subtract discount.
 - 8. Add sales tax.
 - 9. Figure net total.
- D. Assign Assignment Sheets. Have students turn in tapes.
- E. Give posttest.

II. Student

- A. Study objective and information sheets.
- B. Complete Assignment Sheets.
- C. Complete posttest.

INSTRUCTIONAL MATERIALS

- I. Objective Sheet
- II. Information Sheet
- III. Transparency Master
 - A. TM 1: Sample Invoice Form
- IV. Assignment Sheets and Answers
 - A. AS 1: Invoice Practice Set I
 - B. AS 2: Invoice Practice Set II
- V. Posttest and Key

Unit VIII - Numerical Clerical Records
Lesson 5 - Extending Invoices

INFORMATION SHEET

I. Preparing Machine for Extending Invoices

- A. Check paper tape.
- B. Make sure decimal selector is on 2 (two decimal places when working with money).
- C. Set round off key at 5. (R/O key)
- D. Clear grand total register and set machine to accumulate answers (Note: If you have to use the division or multiplication keys to convert fractions or items to decimal equivalents, do NOT use the accumulate key.)

II. Formula for Extending Invoices

- A. $\text{Items} \times \text{Price} = \text{Extension}$
- B. If the price is given in multiple units, convert single units of an item to a decimal percentage. (Example: Price is listed per C or per dozen and items are listed in single units of value.)

III. Checking Answers

- A. Estimate an answer "in your head" quickly before doing the problem on the calculator; if the answer is "really different," check it again.
- B. Check your tape before writing an answer down.
- C. Remember - a discount is subtracted; sales tax is added.
- D. Figure the discount before adding the sales tax.

Sample Invoice Form

QUANTITY	DESCRIPTION	PRICE	EXTENSION
17	Streamers	1.59 per roll	
3	Packs of Cups	3.27 per pack	
150	Napkins	7.50 C	
36	Balloons	2.25 per doz.	
30	Packs of Paper Plates	17.50 per doz.	
6	Cases of Soda	10.75 per case	
16	Packs of Hot Dogs	1.98 ea.	
2	Bags of Charcoal	3.75 ea.	
24	Bags of Potato Chips	15.60 per doz.	
75	Party Hats	12.80 C	
5	Bags of Ice	.65 ea.	
14	Packs of Hot Dog Buns	.79 ea.	
		TOTAL	
		Discount 8%	
		TOTAL	
		Tax 5%	
		GRAND TOTAL	

Unit VIII - Numerical Clerical Records
Lesson 5 - Extending Invoices

ASSIGNMENT SHEET 1: Invoice Practice Set I

Directions: Extend and complete the following invoices.

INVOICE A

Quantity	Description	Price	Extension
15	Streamers	1.59 per roll	
7	Packs of Cups	3.27 per pack	
125	Napkins	7.50 C	
48	Balloons	2.25 doz.	
18	Packs of Paper Plates	17.50 doz.	
5	Cases of Soda	10.75 per case	
18	Packs of Hot Dogs	1.98 ea.	
1	Bag of Charcoal	3.75	
36	Bags of Potato Chips	15.60 doz.	
50	Party Hats	12.80 C	
5	Bags of Ice	.65 ea.	
18	Packs of Hot Dog Buns	.79 ea.	
		TOTAL	
		Discount 8%	
		TOTAL	
		Tax 5%	
		GRAND TOTAL	

Directions: Extend and complete the following invoice

INVOICE B

Quantity	Description	Price	Extension
360	No. 2 lead pencils	3.10 gross	
60	Notebooks	7.16 doz.	
3	Typewriters	620.44 each	
*24 doz.	Pens	10.27 gross	
3 cases	Paper towels	20.27 case	
500	Small boxes straight pins	12.80 C	
125	Shorthand pads	69.00 C	
4 gross	Thin cardboard folders	102.00 gross	
6	Olivetti Ten-key machines	159.65 ea.	
1	Desk and Swivel Chair set	569.95 ea.	
25	Scotch tape rolls	135.00 C	
5	Extension cords - 9 ft.	6.85 ea.	

*Think about this one!

GROSS TOTAL	
20% Discount	
NET TOTAL	
7% Sales Tax	
TOTAL	

Unit VIII - Numerical Clerical Records
Lesson 5 - Extending Invoices

ASSIGNMENT SHEET 2: Invoice Practice Set II

Directions: Extend and complete the following invoice.

INVOICE C

Quantity	Description	Price	Extension
432	Steno Notebooks	25.80 gross	
96	#2 Pencils	1.89 doz.	
105	Typing Books	4.50 ea.	
63	Typewriter Ribbons	2.95 ea.	
720	Erasers	14.50 gross	
180	Calculator Tapes	4.90 doz.	
650	Cassette Tapes	35.00 C	
3	Notebooks	4.39 ea.	
17	Correction Ribbons	3.29 ea.	
288	Eraseable Pens	16.75 gross	
		TOTAL	
		7 1/2% Disc.	
		TOTAL	
		5% Tax	
		NET TOTAL	

Directions: Extend and complete the following invoice.

INVOICE D

Quantity	Description	Price	Extension
7	Junction Boxes	1.85 ea.	
300	White Wire	27.99 M	
1200 ft.	Black Wire	26.66 M	
1500 ft.	Blue Wire	25.48 M	
210 ft.	Orange Wire	25.48 M	
150 ft.	3/4" Conduit	15.67 C	
25 ft.	1/2" Conduit	9.80 C	
40	3/4" Bushings	3.60 C	
15	3/4" Elbows	55.00 C	
6	Fuse Boxes	38.98 ea.	
110	1/2" Conduit Unions	38.84 C	
288	1/2" Connectors	45.97 gr.	
		GROSS AMOUNT	
		15% Discount	
		NET AMOUNT	
		5% Sales Tax	
		TOTAL	

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Unit VIII - Numerical Clerical Records
Lesson 5 - Extending Invoices

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet 1:

INVOICE A

Quantity	Description	Price	Extension
15	Streamers	1.59 per roll	23.85
7	Packs of Cups	3.27 per pack	22.89
125	Napkins	7.50 C	9.38
48	Balloons	2.25 doz.	9.00
18	Packs of Paper Plates	17.50 doz.	26.25
5	Cases of Soda	10.75 per case	53.75
18	Packs of Hot Dogs	1.98 ea. pack	35.64
1	Bag of Charcoal	3.75	3.75
36	Bags of Potato Chips	15.60 doz.	46.80
50	Party Hats	12.80 C	6.40
5	Bags of Ice	.65 ea.	3.25
18	Packs of Hot Dog Buns	.79 ea.	14.22
TOTAL			255.18
Discount 8%			20.41
TOTAL			234.77
Tax 5%			11.74
GRAND TOTAL			246.51

INVOICE B

Quantity	Description	Price	Extension
360	No. 2 lead pencils	3.10 gross	7.75
60	Notebooks	7.16 doz.	35.80
3	Typewriters	620.44 each	1861.32
*24 doz.	Pens	10.27 gross	20.54
3 cases	Paper towels	20.27 case	60.81
500	Small boxes straight pins	12.80 C	64.00
125	Shorthand pads	69.00 C	86.25
4 gross	Thin cardboard folders	102.00 gross	408.00
6	Olivetti Ten-key machines	159.65 ea.	957.90
1	Desk and Swivel Chair set	569.95 ea.	569.95
25	Scotch tape rolls	135.00 C	33.75
5	Extension cords - 9 ft.	6.85 ea.	34.25
		GROSS TOTAL	4140.32
		20% Discount	828.06
		NET TOTAL	3312.26
		7% Sales Tax	231.86
		TOTAL	3544.12

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Assignment Sheet 2:

INVOICE C

Quantity	Description	Price	Extension
432	Steno Notebooks	25.80 gross	77.40
96	#2 Pencils	1.89 doz.	15.12
105	Typing Books	4.50 ea.	472.50
63	Typewriter Ribbons	2.95 ea.	185.85
720	Erasers	14.50 gross	72.50
180	Calculator Tapes	4.90 doz.	73.50
650	Cassette Tapes	35.00 C	227.50
3	Notebooks	4.39 ea.	13.17
17	Correction Ribbons	3.29 ea.	55.93
288	Eraseable Pens	16.75 gross	33.50
TOTAL			1226.97
7 1/2% Disc.			92.02
TOTAL			1134.95
5% Tax			56.75
NET TOTAL			1191.70

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INVOICE D

Quantity	Description	Price	Extension
7	Junction Boxes	1.85 ea.	12.95
300	White Wire	27.99 M	8.40
1200 ft.	Black Wire	26.66 M	31.99
1500 ft.	Blue Wire	25.48 M	38.22
210 ft.	Orange Wire	25.48 M	5.35
150 ft.	3/4" Conduit	15.67 C	23.51
25 ft.	1/2" Conduit	9.80 C	2.45
40	3/4" Bushings	3.60 C	1.44
15	3/4" Elbows	55.00 C	8.25
6	Fuse Boxes	38.98 ea.	233.88
110	1/2" Conduit Unions	38.84 C	42.72
288	1/2" Connectors	45.97 gr.	91.94
		GROSS AMOUNT	501.10
		15% Discount	75.17
		NET AMOUNT	425.93
		5% Sales Tax	21.30
		TOTAL	447.23

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Unit VIII - Numerical Clerical Records
Lesson 5 - Extending Invoices

POSTTEST

Directions: Extend and complete the following invoice.

INVOICE E

Quantity	Description	Price	Extension
150	No. 2 pencils	5.95 C	
58	Typing erasers	1.78 ea.	
6 reams	Typing paper	3.67 rm.	
13	White out	2.35 ea.	
84	Stenographer notebooks	19.80 doz.	
8 reams	Carbon paper	9.24 rm.	
7 reams	Onion skin	3.16 rm.	
1200 rolls	Ten-key tape	107.50 M	
20	Typing ribbon	5.57 ea.	
6	Typing elements	32.98 ea.	
9 reams	Letterhead	9.73 rm.	
			GROSS AMOUNT
			7% Discount
			NET AMOUNT
			5% Sales Tax
			TOTAL

Unit VIII - Numerical Records
Lesson 5 - Extending Invoices

POSTTEST KEY

INVOICE E

Quantity	Description	Price	Extension
150	No. 2 pencils	5.95 C	8.93
58	Typing erasers	1.78 ea.	103.24
6 reams	Typing paper	3.67 rm.	22.02
13	White out	2.35 ea.	30.55
84	Stenographer notebooks	19.80 doz.	138.60
8 reams	Carbon paper	9.24 rm.	73.92
7 reams	Onion skin	3.16 rm.	22.12
1200 rolls	Ten-key tape	107.50 M	129.00
20	Typing ribbon	5.57 ea.	111.40
6	Typing elements	32.98 ea.	197.88
9 reams	Letterhead	9.73 rm.	87.57
		GROSS AMOUNT	925.23
		7% Discount	64.77
		NET AMOUNT	860.46
		5% Sales Tax	43.02
		TOTAL	903.48

Unit VIII - Numerical Clerical Records
Lesson 6 - Banking

LESSON OBJECTIVE

Given a series of 25 checks to be written and information for 4 deposit slips, the student will be able to complete the check register, prepare the deposit slips, and reconcile the monthly bank statement with 90 percent accuracy within 60 minutes.

SUGGESTED ACTIVITIES

I. Instructor

- A. Prepare transparencies.
- B. Distribute objective and information sheets.
- C. Using transparencies, discuss the following:
 - 1. Endorsing checks
 - 2. Preparing deposit slips
 - 3. Writing checks
 - 4. Keeping a check register
 - 5. Reconciling a bank statement
- D. Assign Assignment Sheets. Duplicate handouts--each student will need 5 copies of HO 2, 3 copies of HO 3, 1 copy of HO 4, and 2 copies of HO 5.
- E. Give posttest.

II. Student

- A. Study objective and information sheets.
- B. Complete Assignment Sheets.
- C. Complete posttest.

INSTRUCTIONAL MATERIALS

I. Objective Sheet

II. Information Sheets

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III. Handouts

- A. HO 1: Deposit Slips
- B. HO 2: Check Register
- C. HO 3: Blank Checks and Deposit Slips
- D. HO 4: Blank Checks
- E. HO 5: Form for Reconciling Bank Statements

IV. Transparency Masters

- A. TM 1: Check Endorsements
- B. TM 2: Statement of Account
- C. TM 3: Statement of Account Key Points
- D. TM 4: Form for Reconciling Bank Statements

V. Assignment Sheets

- A. AS 1: Endorsing Checks
- B. AS 2: Preparing Deposit Slips
- C. AS 3: Balancing Your Checkbook
- D. AS 4: Reconciling a Bank Statement--Set 1
- E. AS 5: Reconciling a Bank Statement--Set 2

VI. Posttest and Key

Unit VIII - Numerical Clerical Records
Lesson 6 - Banking

INFORMATION SHEET

I. Terminology

- A. **Endorsement**--A signature on back of a check required to transfer the check from one person to another or to deposit in an account
- B. **Types of endorsement (TM 1)**
 - 1. **Blank Endorsement**--A signature only across the back of the check; anyone who has possession of the check can cash it. (Use the blank endorsement **ONLY** when you plan to cash or deposit the check immediately, **NEVER** endorse a check and put it in your purse or wallet for any reason.)
 - 2. **Endorsement in Full**--Used to transfer a check made out to you to another person. (Sign your name after writing "Pay to the order of" and the name of the person to whom the check is being transferred. This means that the check can be cashed **ONLY** by the person whose name follows "Pay to the order of.")
 - 3. **A Restrictive Endorsement**--Transfers the check only for the purpose stated in the endorsement; the most common restrictive endorsement is "For deposit only" and is used by most businesses immediately when they receive a check. (If the check is lost or stolen, it cannot be cashed but would be deposited to the account of the business.)

II. Preparing Money for a Bank Deposit (HO 1)

- A. Divide currency into denominations (all \$20's together, all \$1's together, etc. with faces up).
- B. Name and address of the depositor and the checking account number may already be printed on deposit slips provided by the bank.
- C. Person making out the deposit slips must fill in:
 - 1. Date of deposit
 - 2. Money and checks to be deposited
 - a. Cash is divided into currency (paper money) and coin.
 - b. List checks singly, identifying them by name of bank or by the number written as a fraction in the upper right hand corner of the check.

- c. If you have an unusually large number of checks, you may show the total on the deposit slip and attach an adding machine tape with checks to verify the total.
- d. Total the deposit slip.
- e. Enter the total in the check register.

III. Writing Checks and Keeping a Check Register (HO 2, 3, 4)

- A. Type or write checks in ink--never pencil (too easy to change).
- B. If check numbers are not printed, number the checks consecutively.
- C. Date check on exact date it is written.
- D. Write name of payee (person to whom check is written) on the line "Pay to the order of."
 - 1. Check spelling carefully.
 - 2. Omit titles such as Mr. or Dr.
- E. Write amount of check in figures next to the dollar sign, leaving no room between \$ and first figure. (Someone may be able to add a figure and make the check for more than you intend.)
- F. On the next line write out the amount of the check:
 - 1. Start writing at extreme left.
 - 2. Capitalize only the first word.
 - 3. Express cents as a fraction of 100.
 - 4. Fill in the rest of the line with a solid line or hyphens when typing.

Examples: Forty-three and 20/100-----Dollars
 Seventeen and no/100-----Dollars
 Only seventy-five cents-----
 One hundred fifteen 25/100-----Dollars

- G. You may wish to indicate the purpose of the check at the bottom of the check; most checks have a "memo" or "for" line for this purpose.
- H. Do NOT erase on a check; if you make an error, write "VOID" across the face of the check.

- I. Do NOT sign blank checks because anyone can fill them out and cash them.
- J. Do NOT make checks out to "Cash" unless you are cashing them immediately.
- K. Sign your check carefully and legibly so that your signature is always easily read by the bank.
- L. Each time you write a check or make a deposit, enter the amount in your check register, subtract checks, and add deposit slips to keep a "running" balance of your account.

VI. Reconciling a Bank Statement (TM 2, TM 3, TM 4)

- A. The bank statement shows all checks subtracted from your account, all deposits added to your account, and the balance at the end of the month (or whenever the bank statement is mailed to you).
- B. Since the bank may not have yet processed all the checks written from and deposits made to your account, the bank statement probably will not agree with your check register.
- C. Accounting for the difference between the bank statement and the balance in your check register is called reconciling the account.
- D. Use the following steps for reconciling the bank statement:
 - 1. Determine which checks are outstanding (written by you but have not cleared the bank) by checking off the checks returned with the bank statement in your check register.
 - 2. If you have a large number of returned checks, it may help you to put them in numerical order before checking them off in your check register.
 - 3. Check the bank statement to see that all deposits have been recorded.
 - 4. On the back of the statement, write the ending bank statement balance. Add any outstanding deposits and subtract any outstanding checks.
 - 5. In your CHECK REGISTER, subtract the service charge or any other charges by the bank that you haven't already subtracted. If you receive interest on your account, add it to your check register balance.
 - 6. The amount in your check register should agree with the amount on back of the bank statement after outstanding items are added or subtracted.

7. If the two figures do not agree, determine the amount of the difference and see if you have a check for that amount which you may have missed.
8. If this isn't the problem, check your addition and subtraction in the check register.
9. If all else fails, you may obtain help from the bank in reconciling your account. However, many banks are now charging for this service.
10. Draw a double line under the figure in the balance column when you have reconciled so that you will know how far back to go when reconciling next month.

Deposit Slips

DEPOSIT SLIP																																						
UNITED PRODUCTION CORPORATION 100 MADISON AVENUE NEW YORK, MISSOURI 65211		 90-01/815																																				
DATE _____ 19____																																						
SIGN HERE FOR CASH RECEIVED (IF REQUIRED)																																						
IRVING TRUST COMPANY ONE WALL STREET NEW YORK, MISSOURI																																						
403 484 87																																						
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">CASH</td> <td style="width: 10%;">CURRENCY</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td></td> <td>COIN</td> <td></td> <td></td> </tr> <tr> <td colspan="2">LIST CHECKS SINGLY</td> <td></td> <td></td> </tr> <tr> <td colspan="2"></td> <td></td> <td></td> </tr> <tr> <td colspan="2"></td> <td></td> <td></td> </tr> <tr> <td colspan="2">TOTAL FROM OTHER SIDE</td> <td></td> <td></td> </tr> <tr> <td colspan="2">TOTAL</td> <td></td> <td></td> </tr> <tr> <td colspan="2">LESS CASH RECEIVED</td> <td></td> <td></td> </tr> <tr> <td colspan="2">NET DEPOSIT</td> <td></td> <td></td> </tr> </table>	CASH	CURRENCY				COIN			LIST CHECKS SINGLY												TOTAL FROM OTHER SIDE				TOTAL				LESS CASH RECEIVED				NET DEPOSIT				USE OTHER SIDE FOR ADDITIONAL LISTING BE SURE EACH ITEM IS PROPERLY ENDORSED
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CHECKS AND OTHER ITEMS ARE RECEIVED FOR DEPOSIT SUBJECT TO THE PROVISIONS OF THE UNIFORM COMMERCIAL CODE OR ANY APPLICABLE COLLECTION AGREEMENT																																						

CHECKS	LIST SINGLY	DOLLARS	CENTS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
TOTAL			

ENTER TOTAL ON THE FRONT OF THIS TICKET

427

Blank Checks and Deposit Slip

UNITED PRODUCTION CORPORATION 100 MADISON AVENUE NEW YORK, MISSOURI 65211	NO. 104	
	19	1-67 210
Pay to the order of _____	\$ _____	
		DOLLARS
 IRVING TRUST COMPANY ONE WALL STREET NEW YORK, MISSOURI		
⑆08⑆500862⑆ 403 484 8⑈ 0762		

UNITED PRODUCTION CORPORATION 100 MADISON AVENUE NEW YORK, MISSOURI 65211	NO. 105	
	19	1-67 210
Pay to the order of _____	\$ _____	
		DOLLARS
 IRVING TRUST COMPANY ONE WALL STREET NEW YORK, MISSOURI		
⑆08⑆500862⑆ 403 484 8⑈ 0762		

DEPOSIT SLIP																																															
UNITED PRODUCTION CORPORATION 100 MADISON AVENUE NEW YORK, MISSOURI 65211																																															
DATE _____ 19 _____																																															
SIGN HERE FOR CASH RECEIVED (IF REQUIRED)																																															
 IRVING TRUST COMPANY ONE WALL STREET NEW YORK, MISSOURI																																															
403 484 8⑈																																															
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	COIN																																														
LIST CHECKS SEPARATELY																																															
TOTAL FROM OTHER SIDE																																															
TOTAL																																															
LESS CASH RECEIVED																																															
NET DEPOSIT																																															
CHECKS AND OTHER ITEMS ARE RECEIVED FOR DEPOSIT SUBJECT TO THE PROVISIONS OF THE UNIFORM COMMERCIAL CODE OR ANY APPLICABLE COLLECTION AGREEMENT																																															

Blank Checks

UNITED PRODUCTION CORPORATION 100 MADISON AVENUE NEW YORK, MISSOURI 65211	NO. 106	
	19	1-87 210
Pay to the order of _____	\$ _____	
		DOLLARS
 <u>IRVING TRUST COMPANY</u> ONE WALL STREET NEW YORK, MISSOURI		
⑆081500862⑆ 403 484 8⑈ 0762		

UNITED PRODUCTION CORPORATION 100 MADISON AVENUE NEW YORK, MISSOURI 65211	NO. 107	
	19	1-87 210
Pay to the order of _____	\$ _____	
		DOLLARS
 <u>IRVING TRUST COMPANY</u> ONE WALL STREET NEW YORK, MISSOURI		
⑆081500862⑆ 403 484 8⑈ 0762		

UNITED PRODUCTION CORPORATION 100 MADISON AVENUE NEW YORK, MISSOURI 65211	NO. 108	
	19	1-87 210
Pay to the order of _____	\$ _____	
		DOLLARS
 <u>IRVING TRUST COMPANY</u> ONE WALL STREET NEW YORK, MISSOURI		
⑆081500862⑆ 403 484 8⑈ 0762		

Check Endorsements

Steven Williams

Blank Endorsement

*Pay to the order of
Ward's Foods
Steven Williams*

Endorsement in Full

FOR DEPOSIT ONLY
WARD'S

NO. 108

Aug. 4, 19 84 $\frac{1-67}{210}$
36. $\frac{82}{100}$
82/100 DOLLARS

en Williams

Restrictive Endorsement
(most have a stamp for this purpose)

Statement of Account



Cape County Bank

101 WEST MAIN
JACKSON, MO 63755

**STATEMENT
OF
ACCOUNT**

**MEMBER
FDIC**

UNITED PRODUCTION CORPORATION
100 MADISON AVENUE
NEW YORK, MISSOURI 65211

ACCOUNT
NUMBER
452 777 1
DATE
5/12/84

63755

L3 70 80

PLEASE EXAMINE AND REPORT ANY DIFFERENCE WITHOUT DELAY. PLEASE ADVISE ANY ADDRESS CHANGE

BALANCE LAST STATEMENT	NO CHECKS	TOTAL AMOUNT CHECKS	NO DEP.	TOTAL AMOUNT DEPOSITS	SERVICE CHARGE	BALANCE THIS STATEMENT
40.37	6	102.12	2	200.00	5.00	133.25

NEW EAST FACILITY HOURS NOW 9 A.M. - 6 P.M. TO SERVE YOU BETTER

CHECKS	DEPOSITS	DATE	BALANCE
AVERAGE BALANCE FOR THIS STATEMENT IS---			\$53
13.52		04/13	26.85
6.78		04/14	20.07
31.80	12.5000	04/30	24.23
	100.00	05/02	75.77
14.02		05/04	61.75
	100.00	05/07	161.75
23.50		05/09	138.25
5.00SC		05/12	133.25

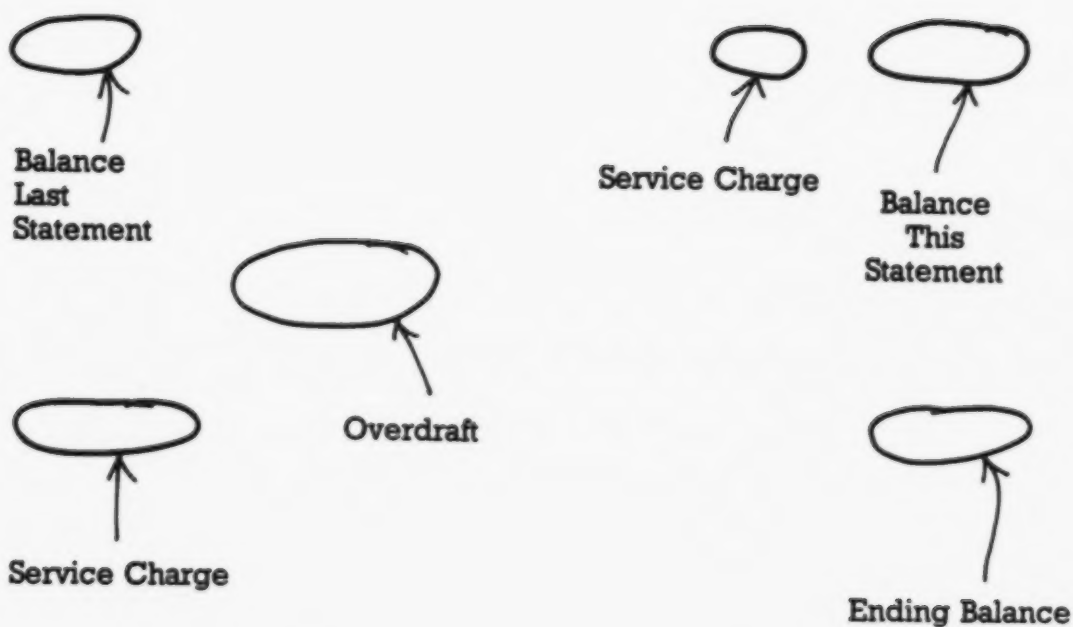
OD - OVERDRAFT
SC - SERVICE CHARGE

RT - RETURNED ITEM
CM - CREDIT MEMO

DM - DEBIT MEMO
IN - INTEREST CREDITED

Statement of Account

Key Points

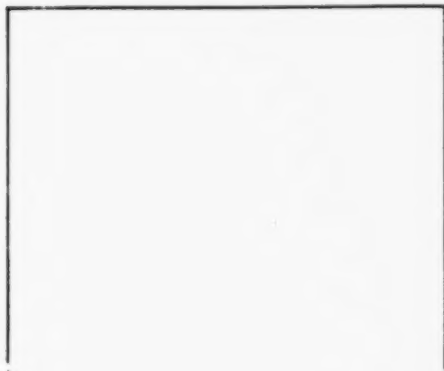


535

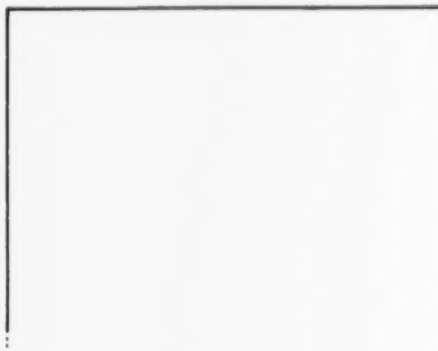
Unit VIII - Numerical Clerical Records
Lesson 6 - Banking

ASSIGNMENT SHEET 1: Endorsing Checks

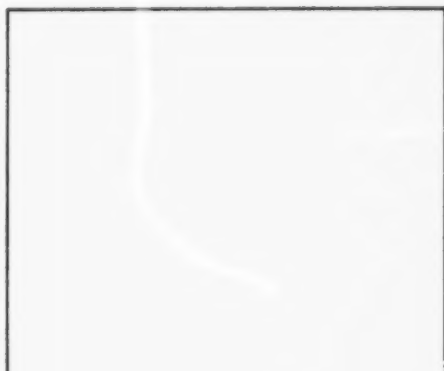
Directions: Using your name, give an example of the three kinds of endorsement.



BLANK ENDORSEMENT



ENDORSEMENT IN FULL
(Sign a check made out to you
over to your instructor)



RESTRICTIVE ENDORSEMENT
(To send a payroll check made
out to you through the mail for
deposit in your checking account)

Unit VIII - Numerical Clerical Records
Lesson 6 - Banking

ASSIGNMENT SHEET 2: Preparing Deposit Slips

Directions: Using the following information, prepare deposit slips. Use two copies of HO 1.

I. Date: January 5, 19--

Currency: three \$20's
two \$ 5's
six \$ 1's

Coin: \$12.34

Checks	\$43.59	-	80-319/815
	16.50	-	80-196/815
	86.92	-	80-307/815

II. Date: January 8, 19--

Currency: one \$50
three \$20's
six \$ 5's

Coin: \$22.65

Checks:	\$176.80	-	80-319/815
	88.07	-	80-319/815

Unit VIII - Numerical Clerical Records
Lesson 6 - Banking

ASSIGNMENT SHEET 3: Balancing Your Checkbook

Directions: Write the following checks and keep a record of the running balance in your check register. Sign your name to the checks. Use HO 2, 3, and 4.

Beginning balance in your check register is \$375.24

Nov. 7	Pay Southwestern Bell \$14.75 for October statement
Nov. 8	Pay King's Service Station \$23.50 for gas
Nov. 9	Deposit \$125, your payroll check
Nov. 10	Pay Plaza Gifts \$33.50 for a birthday gift for your mother.
Nov. 11	Pay Casual Clothes \$57.80 as downpayment on new suit.

Unit VIII - Numerical Clerical Records
Lesson 6 - Banking

ASSIGNMENT SHEET 4: Reconciling a Bank Statement--Set 1

Directions: Keep an accurate check register for your account, using the following transactions. Write out the first three checks and prepare the first two deposit slips to prove you can do these steps. At the end of the month, use the bank statement provided and reconcile the accounts. Use HO 2, 2 copies of HO 3, and 1 copy of TM4 (HO5).

Begin this page of your check register with a balance of \$302.77. Use the current date.

	Purpose	Amount	Payable To	Date
Check No. 107		7.82	Roth's	April 4
Check		10.01	Sears	April 5
Check	Typing supplies	14.82	Plaza Gifts	April 5

DEPOSIT: April 6 - Currency, \$24, Coins \$7.32, Check from Vo-Tech School, \$52.83.

Check		11.31	Mr. C's	April 6
Check	Enroll in Typing	20.00	Adult Ed.	April 7
	Review		Vo-Tech School	
Check		31.26	Famous-Barr	April 7
Check		26.29	Camelot Music	April 11
Check	(\$4.00 for dues \$12.98 for candy sales)	16.98	Cape DECA	April 11

DEPOSIT: April 13 - Currency, \$14, Check from Vo-Tech School \$48.00

Check		10.00	Mr. C's	April 14
Check	Pay on Layaway	18.00	Famous-Barr	April 15
Check		7.38	Pizza Hut	April 15
Check		12.32	Maurice's	April 18

DEPOSIT: April 20--Check from Vo-Tech School for \$45.50

Check		7.81	Big Star	April 21
Check		12.06	Hecht's	April 22
Check		13.02	Main Street	April 22
Check		5.53	Kroger Sav-On	April 23

DEPOSIT: April 27--Check from Vo-Tech School for \$53.20

Check		5.92	Main Street	April 27
-------	--	------	-------------	----------

Assignment Sheet 4:

BANK STATEMENT
Irving Trust Company
May 1, 19--

Beginning Balance 302.77

Service Charge 2.25

Ending Balance 308.25

<u>Checks</u>	<u>Deposits</u>	<u>Balance</u>
10.01 14.82	84.15	362.09
7.82 31.26	62.00	385.01
10.00 11.31		363.70
26.29 12.32	45.50	370.59
7.81 13.02		349.76
5.92 16.98		326.86
12.06		314.80
2.25 s.c.		312.55
4.30 printed cks.		308.25

Unit VIII - Numerical Clerical Records
Lesson 6 - Banking

ASSIGNMENT SHEET 5: Reconciling a Bank Statement--Set 2

Directions: Prepare a check register and reconcile it with this bank statement at the end of the month. Begin this page of your check register with the ending balance from last month. (See AS 4) Use HO 2 and HO 5 (TM4)

	Purpose	Amount	Payable To	Date
Check No. 124		40.02	Kar Kare	May 1
DEPOSIT: Check NO. 4,456 from Cape Realty for \$45.00, May 1.				
Check	Tuition	157.23	SEMO	May 2
DEPOSIT: Payroll check for \$1,500 on May 3.				
Check		10.00	Kentucky Fried Chicken	May 3
Check	Money Owed	45.78	Mary Brown	May 4
Check		25.09	J.C. Penney	May 4
Check		100.95	The Place	May 4
Check		67.89	Mo. Utilities	May 5
DEPOSIT: May 6--\$35.00 from Vo-Tech School.				
DEPOSIT: May 7--Refund from gas bill--\$13.79.				
Check		14.52	Books-n-Things	May 8
Check		16.45	Cable TV	May 8
Check		42.16	Southwestern Bell	May 16
Check	Supplies	18.76	Plaza Gifts	May 19
DEPOSIT: May 20, \$505.68				
Check	Groceries	69.02	Schnucks	May 21
Check		110.75	Mary Smith	May 23
Check	Car Payment	456.78	GMC Corp.	May 24
DEPOSIT: May 30, \$12.03				

Assignment Sheet 5:

BANK STATEMENT
Irving Trust Company
June 1, 19--

Beginning Balance 308.25 Service Charge 2.50 Ending Balance 1,184.76

<u>Checks</u>		<u>Deposits</u>	<u>Balance</u>
20.00	18.00	53.20	323.45
7.38	5.53	45.00	355.54
40.02	157.23	1500.00	1,658.29
45.78	25.09	13.79	1,601.21
100.95	67.89	12.03	1,444.40
16.45	42.16		1,385.79
18.76	69.02		1,298.01
110.75	2.50 s.c.		1,184.76

Unit VIII - Numerical Clerical Records
Lesson 6 - Banking

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet 1:

Student's Name

BLANK ENDORSEMENT

*Pay to the order of
(Teacher's Name)*

Student's Name

ENDORSEMENT IN FULL

*For Deposit Only
Student's Name*

RESTRICTIVE ENDORSEMENT

Assignment Sheet 2:

DEPOSIT SLIP			
UNITED PRODUCTION CORPORATION 100 MADISON AVENUE NEW YORK, MISSOURI 65211			
DATE	<u>Jan. 5</u>	19	<u>XX</u>
SIGN HERE FOR CASH RECEIVED (IF REQUIRED)			
IRVING TRUST COMPANY ONE WALL STREET NEW YORK, MISSOURI 403 484 87			
CHECKS AND OTHER ITEMS ARE RECEIVED FOR DEPOSIT SUBJECT TO THE PROVISIONS OF THE UNIFORM COMMERCIAL CODE OR ANY APPLICABLE COLLECTION AGREEMENT			

CASH	CURRENCY		
	COIN	76	00
LIST CHECKS SEPARATELY		12	34
80-319/815		43	59
80-319/815		14	50
80-307/815		86	92
TOTAL FROM OTHER SIDE			
TOTAL		235	35
LESS CASH RECEIVED			
NET DEPOSIT		235	35

80-06/815

USE OTHER SIDE FOR ADDITIONAL LISTING

BE SURE EACH ITEM IS PROPERLY ENDORSED

DEPOSIT SLIP			
UNITED PRODUCTION CORPORATION 100 MADISON AVENUE NEW YORK, MISSOURI 65211			
DATE	<u>January 8</u>	19	<u>XX</u>
SIGN HERE FOR CASH RECEIVED (IF REQUIRED)			
IRVING TRUST COMPANY ONE WALL STREET NEW YORK, MISSOURI 403 484 87			
CHECKS AND OTHER ITEMS ARE RECEIVED FOR DEPOSIT SUBJECT TO THE PROVISIONS OF THE UNIFORM COMMERCIAL CODE OR ANY APPLICABLE COLLECTION AGREEMENT			

CASH	CURRENCY		
	COIN	140	00
LIST CHECKS SEPARATELY		22	65
80-319/815		176	80
80-319/815		88	07
TOTAL FROM OTHER SIDE			
TOTAL		427	52
LESS CASH RECEIVED			
NET DEPOSIT		427	52

80-06/815

USE OTHER SIDE FOR ADDITIONAL LISTING

BE SURE EACH ITEM IS PROPERLY ENDORSED

Check Register

RECORD ALL CHARGES OR CREDITS THAT AFFECT YOUR ACCOUNT									
NUMBER	DATE	DESCRIPTION OF TRANSACTION	PAYMENT/DEBIT (-)	✓ T	FEE (-)	DEPOSIT/CREDIT (+)	BALANCE		
							302	77	
107	4/4	Roth's	7 82	✓			294	95	
XXX	4/5	Lease	10 01	✓			284	94	
XXX	4/5	Playa Gifts	14 82	✓			270	12	
		Typing Supplies		✓		84 15	354	27	
	4/6	#24 Currency, #7.32 Coin							
XXX	4/6	#52.83 Va. Tech School	11 31	✓			342	96	
		Mr. C's							
XXX	4/7	Adult Ed. Va. Tech School	20 00				322	96	
		Enroll in Typing Review							
XXX	4/7	Famous Bar	31 26	✓			291	70	
XXX	4/11	Camelot Music	36 29	✓			265	41	
XXX	4/11	Cape DECA	16 98	✓			248	43	
		#4 dues \$2.98 candy sales		✓		62 00	310	43	
	4/13	#14 Currency							
XXX	4/14	#48 Va. Tech School	10 00				300	43	
		Mr. C's							
XXX	4/15	Famous Bar	18 00	✓			282	43	
		Pay on Payaway							
XXX	4/16	Pizza Hut	7 38				275	05	
XXX	4/18	Maurice's	12 32	✓			262	73	
XXX	4/20	Va. Tech School		✓		45 20	308	23	
XXX	4/21	Big Star	7 81	✓			300	42	
XXX	4/23	Hecht's	12 06	✓			288	36	
XXX	4/22	Main Street	13 02	✓			275	34	
XXX	4/23	Kroger Sav. Cen	5 53				269	81	
XXX	4/22	Va. Tech School				53 20	323	01	
XXX	4/22	Main Street	5 92	✓			317	09	

Assignment Sheet 4:

UNITED PRODUCTION CORPORATION 100 MADISON AVENUE NEW YORK, MISSOURI 65211		NO. 107
		<u>April 4</u> 19 <u>xx</u> $\frac{1-67}{210}$
Pay to the order of	<u>Roth's</u>	<u>\$ 7. ⁸²/₁₀₀</u>
<u>Seven and ⁸²/₁₀₀</u>		DOLLARS
 IRVING TRUST COMPANY ONE WALL STREET NEW YORK, MISSOURI		
		<u>Student</u>
⑆08⑆500862⑆ 403 484 8⑈ 0762		

UNITED PRODUCTION CORPORATION 100 MADISON AVENUE NEW YORK, MISSOURI 65211		NO. xxx
		<u>April 5</u> 19 <u>xx</u> $\frac{1-67}{210}$
Pay to the order of	<u>Sears</u>	<u>\$ 10. ⁰¹/₁₀₀</u>
<u>Ten and ⁰¹/₁₀₀</u>		DOLLARS
 IRVING TRUST COMPANY ONE WALL STREET NEW YORK, MISSOURI		
		<u>Student</u>
⑆08⑆500862⑆ 403 484 8⑈ 0762		

UNITED PRODUCTION CORPORATION 100 MADISON AVENUE NEW YORK, MISSOURI 65211		NO. xxx
		<u>April 5</u> 19 <u>xx</u> $\frac{1-67}{210}$
Pay to the order of	<u>Plaza Gifts</u>	<u>\$ 14. ⁸²/₁₀₀</u>
<u>Fourteen and ⁸²/₁₀₀</u>		DOLLARS
 IRVING TRUST COMPANY ONE WALL STREET NEW YORK, MISSOURI		
		<u>Student</u>
⑆08⑆500862⑆ 403 484 8⑈ 0762		

Assignment Sheet 4:

DEPOSIT TICKET			
UNITED PRODUCTION CORPORATION 100 MADISON AVENUE NEW YORK, MISSOURI 65211			
DATE <u>April 6</u> 19 <u>XX</u>		85-85/815 USE OTHER SIDE FOR ADDITIONAL LISTING BE SURE EACH ITEM IS PROPERLY ENDORSED	
SIGN HERE FOR CASH RECEIVED (IF REQUIRED)			
IRVING TRUST COMPANY ONE WALL STREET NEW YORK, MISSOURI			
403 484 8 th			
CHECKS AND OTHER ITEMS ARE RECEIVED FOR DEPOSIT SUBJECT TO THE PROVISIONS OF THE UNIFORM COMMERCIAL CODE OR ANY APPLICABLE COLLECTION AGREEMENT.			

CASH	CURRENCY	COIN			
			24	00	
			7	32	
LIST CHECKS SEPARATELY			52	83	
XX/XXX					
TOTAL FROM OTHER SIDE					
TOTAL					
LESS CASH RECEIVED					
NET DEPOSIT			84	15	

DEPOSIT TICKET			
UNITED PRODUCTION CORPORATION 100 MADISON AVENUE NEW YORK, MISSOURI 65211			
DATE <u>April 13</u> 19 <u>XX</u>		85-85/815 USE OTHER SIDE FOR ADDITIONAL LISTING BE SURE EACH ITEM IS PROPERLY ENDORSED	
SIGN HERE FOR CASH RECEIVED (IF REQUIRED)			
IRVING TRUST COMPANY ONE WALL STREET NEW YORK, MISSOURI			
403 484 8 th			
CHECKS AND OTHER ITEMS ARE RECEIVED FOR DEPOSIT SUBJECT TO THE PROVISIONS OF THE UNIFORM COMMERCIAL CODE OR ANY APPLICABLE COLLECTION AGREEMENT.			

CASH	CURRENCY	COIN			
			14	00	
LIST CHECKS SEPARATELY			48	00	
TOTAL FROM OTHER SIDE					
TOTAL					
LESS CASH RECEIVED					
NET DEPOSIT			62	00	

Assignment Sheet 4:

Bank Balance	Checkbook Balance
$ \begin{array}{r} \$ 308.25 \\ - 20.00 \\ - 18.00 \\ - 7.38 \\ - 5.53 \\ \hline 257.34 \\ + 53.20 \text{ Deposit} \\ \hline \$ 310.54 \end{array} $	$ \begin{array}{r} \$ 317.09 \\ - 2.25 \text{ service charge} \\ - 4.30 \text{ printed checks} \\ \hline \$ 310.54 \end{array} $

[illegible]

Check Register

RECORD ALL CHARGES OR CREDITS THAT AFFECT YOUR ACCOUNT

NUMBER	DATE	DESCRIPTION OF TRANSACTION	PAYMENT/DEBIT (-)	✓ T	FEE IF ANY (-)	DEPOSIT/CREDIT (+)	BALANCE
							310 54
124	5/1	Max Hare	40 02	✓			270 52
	5/1	#4,456 Cape Realty		✓		45 00	315 52
xxx	5/2	SEMO Initiation	157 23	✓			158 29
	5/3	Payroll Check		✓		1500 00	1658 29
xxx	5/3	Kentucky Fried Chicken	10 00	✓			1648 29
xxx	5/4	Mary Brown Money owed	45 78	✓			1602 51
xxx	5/4	J. C. Pedney	25 09	✓			1577 42
xxx	5/4	The Place	100 95	✓			1476 47
xxx	5/5	MO. Utilities	67 89	✓			1408 58
	5/6	Vo-Tech School				35 00	1443 58
	5/7	Refund from gas bill		✓		13 79	1457 37
xxx	5/8	Books-m-Things	14 52				1442 85
xxx	5/8	Cable TV	16 45	✓			1426 40
xxx	5/16	Southwestern Bell	42 16	✓			1384 24
xxx	5/19	Plaza Gifts Supplies	18 76	✓			1365 48
	5/20	Deposit				505 68	1871 16
xxx	5/21	Schnucks Groceries	69 02	✓			1802 14
xxx	5/23	Mary Smith	110 75	✓			1691 39
xxx	5/24	GMC Corp. Car Payment	456 78				1234 61
XL	5/30	Deposit		✓		12 03	1246 64

Assignment Sheet 5:

Bank Balance	Checkbook Balance
$ \begin{array}{r} \$1184.76 \\ + 540.68 \text{ Outstanding Deposit} \\ \hline 1725.44 \\ - 481.30 \text{ Outstanding Checks} \\ \hline 1244.14 \end{array} $	$ \begin{array}{r} \$1246.64 \\ - 2.50 \text{ Serv. Charge} \\ \hline 1244.14 \end{array} $

Unit VIII - Numerical Clerical Records
Lesson 6 - Banking

POSTTEST

Directions: Enter the following transactions in a check register. Use a beginning balance of \$8,732.29. After you have completed the transactions, use the bank statement to reconcile the checkbook and bank statement. Use 2 copies of HO 2 and HO 5.

Purpose	Amount	Payable To	Date
Check No. 101	323.19	Texaco, Inc.	Jan. 6
Check	116.11	Ramada Inn	Jan. 6
Check	78.39	Vo-Tech School	Jan. 6
Check	118.92	Family Doctor's Group	Jan. 7
DEPOSIT: \$634.81			Jan. 7
Check	66.21	Ward's	Jan. 8
Check	18.12	Brenda's Florist	Jan. 8
Check	22.19	Patti's Hair Care	Jan. 8
Check	612.87	Ford Motor Co.	Jan. 9
Check	19.88	Al's Diner	Jan. 9
Check	56.13	Young's Office Supply	Jan. 9
DEPOSIT: \$117.23			Jan. 10
Check	712.18	Farmer's Bank	Jan. 10
Check	23.45	Gas'N Go	Jan. 12
Check	17.78	Doris Gaynor	Jan. 12
Check	62.12	Family Fashions	Jan. 14
DEPOSIT: \$263.16			
Check	17.89	Ward's	Jan. 15
Check	62.12	K-Mart	Jan. 16
DEPOSIT: \$263.16			Jan. 16
Check	17.89	Acme Hardware	Jan. 17
Check	103.18	Mo. Dept. of Revenue	Jan. 20
Check	172.93	Mo. Utilities	Jan. 20
Check	334.59	Maple City Collector	Jan. 21
Check	760.20	Farmer's Bank	Jan. 22
Check	119.18	Maple City Hospital	Jan. 24

Unit VIII - Numerical Clerical Records
Lesson 6 - Banking

POSTTEST

BANK STATEMENT

<u>Req. Balance</u>	<u>Deposits</u>	<u>Checks</u>	<u>Service Charge</u>	<u>New Balance</u>
\$8732.29	\$1015.21	\$2895.19	\$1.50	\$6850.80

	<u>Checks</u>	<u>Deposits</u>	<u>Balance</u>
\$ 66.21	\$118.92		\$8547.16
78.39	22.19		8446.58
116.11	56.13	634.81	8909.15
323.19	612.87		7973.09
17.78	23.45	117.23	8049.09
712.18	103.18		7233.73
17.89	172.93	263.16	7306.07
334.59	119.18		6850.80

1.50 (s.c.)

Unit VIII - Numerical Clerical Records
Lesson 6 - Banking

POSTTEST KEY

RECORD ALL CHARGES OR CREDITS THAT AFFECT YOUR ACCOUNT

NUMBER	DATE	DESCRIPTION OF TRANSACTION	PAYMENT/DEBIT (-)	✓ T	FEE (IF ANY) (-)	DEPOSIT/CREDIT (+)	BALANCE
101	7/6	Texas, Inc.	323 19	✓			8732 29
102	7/6	Ramada Inn	116 11	✓			8409 10
103	7/6	Co. Tech. School	28 39	✓			8292 99
104	7/7	Family Doctor's Group	118 23	✓			8214 60
	7/7	Deposit		✓		634 81	8092 68
105	7/8	Wards	66 21	✓			8930 49
							8664 28
106	7/8	Brenda's Florist	18 12				8646 16
							8623 92
107	7/8	Pattie's Hair Care	22 19	✓			8011 10
108	7/9	Ford Motor Company	613 87	✓			7991 22
109	7/9	Al's Diner	12 88				2935 69
110	7/10	Young's Office Supply	56 13	✓			8652 32
	7/10	Deposit		✓		117 23	7340 14
111	7/10	Farmer's Bank	712 18	✓			7316 69
112	7/12	Gas 'N Go	23 45	✓			7298 91
113	7/12	Doris Daynor	17 78	✓			7236 22
							7499 95
114	7/14	Family Fashions	62 12				7482 06
		Deposit		✓		263 16	7419 94
115	7/15	Ward's	17 82				7683 10
							2665 21
116	7/16	K-Mart	62 12				7562 03
		Deposit				263 16	7389 10
117	7/17	Acme Hardware	12 89	✓			7054 51
118	7/20	7110. Dept. of Revenue	103 18	✓			6294 31
119	7/20	DND Utilities	172 93	✓			6175 13
120	7/21	Maple City Collector	334 59	✓			
121	7/23	Farmer's Bank	260 20				
122	7/24	Maple City Hospital	119 18	✓			

POSTTEST KEY

Balance shown on
BANK STATEMENT \$ 6850.80



Add Deposits
Not on Statement . . . \$ 263.16

Sub Total \$ 7113.96

PERIOD Jan. 1 TO Jan. 31 19 XX

[illegible]

Total \$ 940.33

BALANCE\$ 6173.63

Balance shown in
Your CHECK Book... \$ 6175.13

Add any Deposits Not
Already Entered in
Check Book \$ _____

Sub-Total \$ 6175.13

Subtract Service Charges
and other Bank Charges
Not in Check Book

\$ 1.50

Total.....\$ 1.50

BALANCE: \$ 6173.63

457

Unit VIII - Numerical Clerical Records
Lesson 6 - Banking

POSTTEST KEY

Check No.	Amount	Deposit	Balance
			8,732.29
101	323.19		8,409.10
102	116.11		8,292.96
103	78.39		8,214.60
104	118.92	634.81	8,730.49
105	66.21		8,664.28
106	18.12		8,646.16
107	22.19		8,623.97
108	612.87		8,011.10
109	19.88		7,991.22
110	56.13	117.23	8,052.32
111	712.18		7,340.14
112	23.45		7,316.69
113	17.78		7,298.91
114	62.12	263.16	7,499.95
115	17.89		7,482.06
116	62.12		7,419.94
117	17.89		7,402.05
118	103.18		7,298.87
119	172.93		7,125.94
120	334.59		6,791.35
121	760.20	263.16	6,294.31
122	119.18		6,175.13

Subtraction for Service Charge - 1.50

6,173.63

Bank Statement	6,850.80
Add on Deposits not on Statement	263.16
Subtotal	7,113.96

Outstanding Checks	18.12
	19.88
	62.12
	760.20
	62.12
	17.89

6,173.63

Unit VIII - Numerical Clerical Records
Lesson 7 - Petty Cash

LESSON OBJECTIVE

Given information for 16 petty cash vouchers, the student will be able to complete the necessary steps to disburse the funds, check the balance, and replenish the petty cash fund with 90 percent accuracy within 45 minutes.

SUGGESTED ACTIVITIES

I. Instructor

- A. Prepare transparencies.
- B. Distribute objective and information sheets to students.
- C. Fill in TM 2 (Petty Cash Book) and work several examples involving balancing the petty cash.
- D. Assign Assignment Sheets.
- E. Give posttest. Each student will need 2 copies of each form included in the posttest.

II. Student

- 1. Study objective and information sheets.
- 2. Complete Assignment Sheets.
- 3. Complete posttest.

INSTRUCTIONAL MATERIALS

I. Objective Sheet

II. Information Sheets

III. Handouts

- A. HO 1: Petty Cash Voucher/Receipts
- B. HO 2: Petty Cash Book

IV. Transparency Masters

- A. TM 1: Petty Cash Voucher/Receipt
- B. TM 2: Petty Cash Book
- C. TM 3: Summary Report of Petty Cash

V. Assignment Sheets and Answers

- A. AS 1: Petty Cash Practice Set I
- B. AS 2: Petty Cash Practice Set II

VI. Posttest and Key

Unit VIII - Numerical Clerical Records
Lesson 7 - Petty Cash

INFORMATION SHEET

- I. Purpose of Petty Cash Fund--To have cash on hand to pay small bills for which a check would be too costly or too time consuming
- II. Guidelines for Keeping Petty Cash Fund
 - A. Do not keep large amounts of cash. Your company should decide what amount is appropriate for your petty cash fund.
 - B. One person should be responsible for the petty cash fund. Do not let employees of the company indiscriminately take money from the fund as this makes recordkeeping difficult.
 - C. Always prepare a petty cash voucher or receipt when money is taken from the fund.
 1. Vouchers should be numbered consecutively and dated.
 2. Vouchers should show the amount of the payment made and to whom payment is to be made.
 3. Voucher should be signed by the person receiving the payment or a store receipt should be attached for items purchased by an employee.
 4. Voucher should show the purpose for which money is to be used.
 5. Voucher should be recorded in the petty cash book and filed in the petty cash box or drawer.
 - D. Replenish the petty cash fund at the time specified by the company (weekly, monthly, etc.) or when the amount of cash gets below a designated amount.
 1. Count the cash in the petty cash fund.
 2. Add up the totals for all vouchers.
 3. These amounts should total the original amount designated for the petty cash fund.
 4. Total the columns in the petty cash book so that a distribution of payments can be made for the summary report.
 5. If the records cannot be reconciled, record the difference to "cash short" or "cash over" so the records will balance.

6. Prepare the summary report of petty cash and attach the vouchers as proof of the expenditures.
7. Submit the report to the person responsible for writing checks so that a check can be written to "Petty Cash" for the amount of the expenditures.
8. Cash the check and place the money in the petty cash box, bringing the total amount of cash in the box back to the original amount established for the petty cash fund.

Petty Cash Voucher/Receipt

No. _____ Date _____ 19—
Received \$ _____
_____ Dollars
For _____

Signed _____

Petty Cash Voucher/Receipt

No. _____ Date _____ 19—
Received \$ _____
_____ Dollars
For _____

Signed _____

Petty Cash Voucher/Receipt

No. _____ Date _____ 19—
Received \$ _____
_____ Dollars
For _____

Signed _____

Petty Cash Voucher/Receipt

No. _____ Date _____ 19—
Received \$ _____
_____ Dollars
For _____

Signed _____

HO 2

464

Petty Cash Voucher/Receipt

No. <u>110</u>	Date <u>April 29,</u> 19 ^{XX}
Received <u>Twelve and XX/100</u>	\$ <u>12.⁰⁰</u>
Dollars	
For <u>Delivery of Merchandise by United Parcel Service</u>	
Signed <u>Sam Wilson</u>	

Number vouchers consecutively.

Show purpose of payment and to whom payment is made.

Use current date.

Write amount of payment clearly in numbers and in words.

Receiver of payment should sign voucher.

Note:

1. A store receipt should be attached to voucher.
2. Record vouchers in the petty cash book and file them in the petty cash box or drawer.

Petty Cash Book

[illegible]

468

469

TM 2

577

Summary Report of Petty Cash

April 14 to April 18, 19xx

Balance on hand April 14.....\$25.00

Expenditures:

Office Supplies.....	\$7.35
Store Supplies.....	75
Advertising.....	3.00
Miscellaneous.....	2.45

Total Expenditures.....\$13.55

Balance on hand April 18.....\$11.45

To replenish fund, make check for \$13.55, amount of expenditures.

Amount of cash in petty cash fund should be \$11.45.

After check is cashed, amount will again be \$25.00.

Unit VIII - Numerical Clerical Records
Lesson 7 - Petty Cash

ASSIGNMENT SHEET 1: Petty Cash Practice Set I

Directions: Prepare vouchers and record the following transactions for a petty cash fund. At the end of the week, "prove" the petty cash (balance), prepare a summary report of petty cash, replenish the petty cash fund and continue with the vouchers in Assignment 2. Use 2 HO 1 and 1 HO 2.

- April 1 Check No. 190 for \$25 was cashed to establish the petty cash fund
- April 1 Voucher 101 paid to Joe Jackson for \$10 for office supplies
- April 2 Paid Federal Express \$3 for delivery of merchandise
- April 3 Paid Jones Hardware \$1.35 for supplies for the store
- April 3 Paid School Newspaper \$2.25 for an ad in the school newspaper
- April 4 Paid \$2.65 to Plaza Office Supply for envelopes
- April 5 Balance the petty cash book and prepare a summary report of petty cash
- April 5 Check No. 230 for _____ cashed to replenish the petty cash fund

Unit VIII - Numerical Clerical Records
Lesson 7 - Petty Cash

ASSIGNMENT SHEET 2: Petty Cash Practice Set II

Directions: Continue with the petty cash fund from Assignment Sheet 1. Record the following transactions for the petty cash fund. At the end of the week "prove" the petty cash (balance), prepare a summary report of petty cash, and replenish the petty cash fund. You do not need to fill out vouchers for this assignment. Use 2 HO 1 and 1 HO 2.

- April 8 Paid Charles Johnson \$5 for delivering merchandise for the store
- April 8 Paid School Newspaper \$2.25 for ad in school newspaper
- April 9 Paid Bill Ames \$7 for clipping weeds around sidewalk
- April 10 Paid Federal Express \$2.75 for delivery of merchandise
- April 11 Paid Plaza Office Supply \$3.39 for ball point pens
- April 12 Balance petty cash, prepare summary report and cash check No. 375 to replenish the petty cash fund for next week

Unit VIII - Numerical Clerical Records
Lesson 7 - Petty Cash

ANSWERS TO ASSIGNMENT SHEETS

Petty Cash Voucher/Receipt

No. 101 Date April 1 1957
Received Ten and ⁰⁰/₁₀₀ \$ 10.00
For Office Supplies Dollars
Signed Joe Jackson

Petty Cash Voucher/Receipt

No. 102 Date April 2 1957
Received Three and ⁰⁰/₁₀₀ \$ 3.00
For Federal Express Delivery Dollars
Signed _____

Petty Cash Voucher/Receipt

No. 103 Date April 3 1957
Received One and ³⁵/₁₀₀ \$ 1.35
For Supplies for store Dollars
Signed _____

Petty Cash Voucher/Receipt

No. 104 Date April 3 1957
Received Two and ⁴⁵/₁₀₀ \$ 2.45
For School Newspaper Ad Dollars
Signed _____

Petty Cash Voucher/Receipt

No. 105 Date April 4 1957
Received Two and ⁴⁵/₁₀₀ \$ 2.45
For Envelopes from Plaza Office Supply Dollars
Signed _____

Petty Cash Book

Date	Explanation	Receipts	Pay-ments	Distribution of Payments				
				Office Supplies	Store Supplies	Adver-tising	Delivery	Miscel-laneous
April 1	Establish petty cash fund.	25 00						
1	Joe Jackson / Voucher 101		10 00	10 00				
2	Federal Express / Voucher 102		3 00				3 00	
3	Jones Hardware / Voucher 103		1 35		1 35			
3	School Newspapers / Voucher 104		2 25			2 25		
4	Plaza Office Supply / Voucher 105		2 65	2 65				
5	Totals	25 00	19 25	14 65	1 35	2 25	3 00	
	Balance		5 75	should equal Total payments				
		25 00	25 00					
April 5	Balance	5 75						
5	Check No. 230	19 25						
8	Charles Johnson / Voucher 106		5 00				5 00	
8	School Newspapers / Voucher 107		2 25			2 25		
9	Bill Ames / Voucher 108		7 00					7 00
10	Federal Express / Voucher 109		2 75				2 75	
11	Plaza Office Supply / Voucher 110		3 39	3 39				
12	Totals	25 00	20 39	3 39	-	2 25	7 75	7 00
	Balance		4 61					
		25 00	25 00					
April 12	Balance	4 61						
		20 39						

Assignment Sheet 1:

Summary Report of Petty Cash
April 1 - 5, 19xx

Balance on hand April 1 \$25.00

Expenditures:

Office Supplies	\$12.65
Store Supplies	1.35
Advertising	2.25
Delivery	<u>3.00</u>

Total Expenditures 19.25

Balance on hand April 5 \$5.75

Assignment Sheet 2:

Summary Report of Petty Cash
April 8 - 12, 19xx

Balance on hand April 8 \$25.00

Expenditures:

Office Supplies	\$ 3.39
Advertising	2.25
Delivery	7.75
Miscellaneous	<u>7.00</u>

Total Expenditures 20.39

Balance on hand April 12 \$ 4.61

Unit VIII - Numerical Clerical Records
Lesson 7 - Petty Cash

POSTTEST

I. Mr. Montgomery started a petty cash fund on March 1 by cashing check #210 for \$80.

1. Prepare vouchers and record the following entries in the petty cash record. Use 2 HO 1.
2. Balance the petty cash book and prepare a summary report of petty cash. Use 2 HO 2.

DATE	PAID FOR	AMOUNT
March 2	Railway Express charges on merchandise delivered, Voucher No. 1	\$ 7.20
4	Box of carbon paper for the office, Plaza Office Supply	7.25
6	Stationery for office, Adams Paper Co.	14.75
9	Electric bulbs, Acme Hardware	.89
12	Removal of rubbish, Joe's Hauling Service	6.50
15	Cards for display signs, Mecum Ad Service	2.65
21	Freight charge for delivery of merchandise, Bill James	4.35
31	Supper money for staff, Pizza Hut	12.80

II. On April 1, Mr. Montgomery cashed check #301 to replenish the petty cash fund as a result of the payments made in March. Follow the same procedures used above to record petty cash entries for April. You will not need to prepare vouchers for this month.

DATE	PAID FOR	AMOUNT
April 3	Repairs to shelves	\$ 9.80
5	Express charge on merchandise received	4.60
9	Stamps for office use	6.00
10	Large bottle of ink for office	1.50
14	Removal of rubbish	6.55
18	Newspaper advertisement	15.00
24	Freight charge on delivery	9.75
30	Ream of paper for office	11.20

Unit VIII - Numerical Clerical Records
Lesson 7 - Petty Cash

POSTTEST KEY

Petty Cash Voucher/Receipt
No. 1 Date March 2 1968
Received \$ 7.48
Seven and 48/100 Dollars
For Railway Express Delivery Charges
Signed _____

Petty Cash Voucher/Receipt
No. 5 Date March 12 1968
Received \$ 6.48
Six and 48/100 Dollars
For Rubbish Removal by Joe's Trash Hauling Service
Signed _____

Petty Cash Voucher/Receipt
No. 2 Date March 4 1968
Received \$ 7.48
Seven and 48/100 Dollars
For Custom Paper from Piza Office Supply
Signed _____

Petty Cash Voucher/Receipt
No. 6 Date March 15 1968
Received \$ 2.48
Two and 48/100 Dollars
For Display sign cards from Museum Ad Service
Signed _____

Petty Cash Voucher/Receipt
No. 3 Date March 6 1968
Received \$ 1.48
One and 48/100 Dollars
For Office stationery from Adams Paper Co.
Signed _____

Petty Cash Voucher/Receipt
No. 7 Date March 21 1968
Received \$ 4.48
Four and 48/100 Dollars
For Merchandise freight charge
Signed Bill James

Petty Cash Voucher/Receipt
No. 4 Date March 9 1968
Received \$ 0.88
Eighty 8/100 Dollars
For Electric bulbs from Acme Hardware
Signed _____

Petty Cash Voucher/Receipt
No. 8 Date March 21 1968
Received \$ 12.48
Twelve and 48/100 Dollars
For Supper at Piza Hut
Signed _____

Petty Cash Book

Date	Explanation	Receipts	Pay-ments	Distribution of Payments				
				Office Supplies	Store Supplies	Adver-tising	Delivery	Miscel-laneous
March 1	Establish petty cash fund	80.00						
2	Railway Express - Voucher 1		7.20				7.20	
4	Office Supply - Voucher 2		7.25	7.25				
6	Adams Paper Company - Voucher 3		14.75	14.75				
9	Home Hardware - Voucher 4		.87					.87
12	Job Hauling Service - Voucher 5		6.50					6.50
15	Thermon Ad Service - Voucher 6		2.45			2.45		
21	Bill James - Voucher 7		4.35				4.35	
31	Poppe H&L - Voucher 8		12.80					12.80
	TOTALS	80.00	54.39	22.00	-	2.45	11.55	20.19
	Balance		25.61					
		80.00	80.00					

Petty Cash Book

Date	Explanation	Receipts	Pay-ments	Distribution of Payments				
				Office Supplies	Store Supplies	Adver-tising	Delivery	Miscel-laneous
April 1	Balance	25.61						
1	Check No. 33	54.39						
3	Voucher 9 - Repair to shelves		9.20					9.20
5	Voucher 10 - Express charge		4.60				4.60	
9	Voucher 11 - Stamps		6.00	6.00				
10	Voucher 12 - INR for office		1.50	1.50				
14	Voucher 13 - Rubbish removal		6.55					6.55
18	Voucher 14 - Advertising		15.00			15.00		
24	Voucher 15 - Delivery charge		9.75				9.75	
30	Voucher 16 - Paper for office		11.20	11.20				
	TOTALS	80.00	64.40	18.70		15.00	14.35	16.35
	Balance		15.60					
		80.00	80.00					

SUMMARY REPORT OF PETTY CASH
March 1-31, 19xx

Balance on hand, March 1		\$80.00
Expenditures:		
Office Supplies	\$22.00	
Advertising	2.65	
Delivery	11.55	
Miscellaneous	<u>20.19</u>	
Total Expenditures		<u>56.39</u>
Balance on hand, March 31		<u><u>\$23.61</u></u>

Unit VIII - Numerical Clerical Records
Lesson 8 - Payroll

LESSON OBJECTIVE

Given information on hours worked, dependents, and other deductions for 10 employees, the student will be able to figure regular and overtime gross earnings, calculate payroll deductions, compute net earnings and prepare payroll checks with 90 percent accuracy within thirty minutes.

SUGGESTED ACTIVITIES

I. Instructor

- A. Prepare transparencies.
- B. Distribute objective and information sheets.
- C. Present the following information to students:
 - 1. Methods of figuring payroll
 - a. hourly wage
 - b. salary
 - c. piece rate
 - d. commission
 - 2. Methods for figuring overtime pay
 - 3. Deductions
 - 4. Writing checks for net pay
- D. Assign Assignment Sheets. Duplicate HO 4. Each student will need 12 copies of HO 4 and 4 copies of HO 5.
- E. Give posttests. (If preferred, posttest 1 can be used as an extra assignment sheet.)

II. Student

- A. Study objective and information sheets.
- B. Complete Assignment Sheets.
- C. Complete posttest.

INSTRUCTIONAL MATERIALS

- I. Objective Sheet
- II. Information Sheets
- III. Handouts
 - A. HO 1: Income Tax Withholding Chart--Single Persons
 - B. HO 2: Income Tax Withholding Chart--Married Persons
 - C. HO 3: Social Security Employee Tax Table
 - D. HO 4: Payroll Checks
 - E. HO 5: Payroll Sheet
- IV. Transparency Masters
 - A. TM 1: Payroll Checks
 - B. TM 2: Payroll Sheet
- V. Assignment Sheets and Answers
 - A. AS 1: Figuring Gross Pay (Piece Rate)
 - B. AS 2: Payroll Problems
 - C. AS 3: Payroll Practice I
 - D. AS 4: Payroll Practice II
- VI. Posttests and Keys

Unit VIII - Numerical Clerical Records
Lesson 8 - Payroll

INFORMATION SHEET

I. Methods of Figuring Payroll

- A. **Hourly wage**--For employees who are paid by the hour. The largest percentage of workers are paid hourly wage. The formula is: hourly wage X number of hours worked = gross pay.
- B. **Salary**--A set figure is agreed upon for a week's work, month's work, etc.
- C. **Piece Rate**--Paid to many factory workers as a means of encouraging better production. Usually workers are paid a base rate by the hour but are given a "bonus" for goods produced above the amount determined by management to be over the profit level on production. When figuring gross pay, a figure must be determined by the hour for the base rate and the bonus for piece rate must be added to this figure to determine gross pay.
- D. **Commission**--Paid to salesmen. Often the gross pay is determined simply as a percentage of total sales. Some workers in retail sales may be paid an hourly rate and the commission may be a bonus for sales of certain items. In this case, the hourly wage must be figured for base rate and the percentage of sales is added as a bonus in order to determine gross pay.

II. Method for Figuring Overtime Pay

- A. Determine overtime hours--May be any time over 40 hours a week or any time over 8 hours a day. This differs with employers.
- B. Formula for figuring overtime pay:
 - 1. Standard method:

Overtime Hours X 1.5 X hourly wage = time-and-a-half
Overtime Hours X 2 X hourly wage = double time
 - 2. Optional method:

Hourly wage X 1.5 X overtime hours = time-and-a-half
Hourly wage X 2 X overtime hours = double time
 - 3. The first method is more accurate but either method can be used.

III. Deductions

- A. Weekly federal withholding tax (income tax) is listed in HO 1 and HO 2.
- B. Check other charts for biweekly and monthly rates,
- C. Check HO 1 and HO 2 for single or married.
- D. Check chart for number of dependents.
- E. If state has income tax withholding, there will be another chart for this. (We will not be figuring state income tax.)
- F. Use HO 3 for withholding social security (FICA).
- G. If there are other deductions such as insurance or savings, this will be listed in the employee's personnel records.

IV. Writing Pay Checks

- A. Pay checks are written just as any other check except that gross pay and deductions should be shown so the employee will know how net pay was figured.
- B. Amount of the pay check is for the net pay.
- C. Checks may be typed, handwritten or prepared on computer according to the company preference. (TM 1)
- D. Careful records should be kept of gross pay, deductions, and net pay for each employee and the totals of each. (TM 2)

Income Tax Withholding Chart

Single Persons - Weekly Payroll Period

And the wages are—		And the number of withholding allowances claimed is—										
At least	But less than	0	1	2	3	4	5	6	7	8	9	10 or more
The amount of income tax to be withheld shall be—												
\$135	\$140	\$19.00	\$15.30	\$11.80	\$8.40	\$5.00	\$2.10	\$0	\$0	\$0	\$0	\$0
140	145	20.00	16.20	12.70	9.30	5.80	2.90	0	0	0	0	0
145	150	21.10	17.10	13.60	10.20	6.70	3.60	.70	0	0	0	0
150	160	22.60	18.60	15.00	11.50	8.10	4.70	1.80	0	0	0	0
160	170	24.70	20.70	16.80	13.30	9.90	6.40	3.30	.50	0	0	0
170	180	26.80	22.80	18.80	15.10	11.70	8.20	4.80	2.00	0	0	0
180	190	28.90	24.90	20.90	16.90	13.50	10.00	6.50	3.50	.60	0	0
190	200	31.00	27.00	23.00	18.90	15.30	11.80	8.30	5.00	2.10	0	0
200	210	33.60	29.10	25.10	21.00	17.10	13.60	10.10	6.70	3.60	.70	0
210	220	36.20	31.20	27.20	23.10	19.10	15.40	11.90	8.50	5.10	2.20	0
220	230	38.80	33.80	29.30	25.20	21.20	17.20	13.70	10.30	6.80	3.70	.80
230	240	41.40	36.40	31.40	27.30	23.30	19.20	15.50	12.10	8.60	5.20	2.30
240	250	44.00	39.00	34.00	29.40	25.40	21.30	17.30	13.90	10.40	6.90	3.80
250	260	46.60	41.60	36.60	31.60	27.50	23.40	19.40	15.70	12.20	8.70	5.30
260	270	49.20	44.20	39.20	34.20	29.60	25.50	21.50	17.50	14.00	10.50	7.10
270	280	51.80	46.80	41.80	36.80	31.80	27.60	23.60	19.60	15.80	12.30	8.90
280	290	54.80	49.40	44.40	39.40	34.40	29.70	25.70	21.70	17.60	14.10	10.70
290	300	57.80	52.10	47.00	42.00	37.00	32.00	27.80	23.80	19.70	15.90	12.50
300	310	60.80	55.10	49.60	44.60	39.60	34.60	29.90	25.90	21.80	17.80	14.30
310	320	63.80	58.10	52.30	47.20	42.20	37.20	32.20	28.00	23.90	19.90	16.10
320	330	66.80	61.10	55.30	49.80	44.80	39.80	34.80	30.10	26.00	22.00	17.90
330	340	70.00	64.10	58.30	52.50	47.40	42.40	37.40	32.40	28.10	24.10	20.00
340	350	73.40	67.10	61.30	55.50	50.00	45.00	40.00	35.00	30.20	26.20	22.10
350	360	76.80	70.30	64.30	58.50	52.80	47.60	42.60	37.60	32.60	28.30	24.20
360	370	80.20	73.70	67.30	61.50	55.80	50.20	45.20	40.20	35.20	30.40	26.30
370	380	83.60	77.10	70.50	64.50	58.80	53.00	47.80	42.80	37.80	32.80	28.40
380	390	87.00	80.50	73.90	67.50	61.80	56.00	50.40	45.40	40.40	35.40	30.50
390	400	90.40	83.90	77.30	70.80	64.80	59.00	53.20	48.00	43.00	38.00	33.00
400	410	93.80	87.30	80.70	74.20	67.80	62.00	56.20	50.60	45.60	40.60	35.60
410	420	97.20	90.70	84.10	77.60	71.10	65.00	59.20	53.50	48.20	43.20	38.20
420	430	100.60	94.10	87.50	81.00	74.50	68.00	62.20	56.50	50.80	45.80	40.80
430	440	104.10	97.50	90.90	84.40	77.90	71.30	65.20	59.50	53.70	48.40	43.40
440	450	108.00	100.90	94.30	87.80	81.30	74.70	68.20	62.50	56.70	51.00	46.00
450	460	111.90	104.40	97.70	91.20	84.70	78.10	71.60	65.50	59.70	53.90	48.60
460	470	115.80	108.30	101.10	94.60	88.10	81.50	75.00	68.50	62.70	56.90	51.20
470	480	119.70	112.20	104.70	98.00	91.50	84.90	78.40	71.80	65.70	59.90	54.20
480	490	123.60	116.10	108.60	101.40	94.90	88.30	81.80	75.20	68.70	62.90	57.20
490	500	127.50	120.00	112.50	105.00	98.30	91.70	85.20	78.60	72.10	65.90	60.20
500	510	131.40	123.90	116.40	108.90	101.70	95.10	88.60	82.00	75.50	69.00	63.20
510	520	135.30	127.80	120.30	112.80	105.30	98.50	92.00	85.40	78.90	72.40	66.20
520	530	139.20	131.70	124.20	116.70	109.20	101.90	95.40	88.80	82.30	75.80	69.20
530	540	143.10	135.60	128.10	120.60	113.10	105.60	98.80	92.20	85.70	79.20	72.60
540	550	147.00	139.50	132.00	124.50	117.00	109.50	102.20	95.60	89.10	82.60	76.00
550	560	150.90	143.40	135.90	128.40	120.90	113.40	105.90	99.00	92.50	86.00	79.40
560	570	154.80	147.30	139.80	132.30	124.80	117.30	109.80	102.40	95.90	89.40	82.80
570	580	158.70	151.20	143.70	136.20	128.70	121.20	113.70	106.20	99.30	92.80	86.20
580	590	162.60	155.10	147.60	140.10	132.60	125.10	117.60	110.10	102.70	96.20	89.60
590	600	166.50	159.00	151.50	144.00	136.50	129.00	121.50	114.00	106.50	99.60	93.00
600	610	170.40	162.90	155.40	147.90	140.40	132.90	125.40	117.90	110.40	103.00	96.40
610	620	174.30	166.80	159.30	151.80	144.30	136.80	129.30	121.80	114.30	106.80	99.80
620	630	178.20	170.70	163.20	155.70	148.20	140.70	133.20	125.70	118.20	110.70	103.20
630	640	182.10	174.60	167.10	159.60	152.10	144.60	137.10	129.60	122.10	114.60	107.10
640	650	186.00	178.50	171.00	163.50	156.00	148.50	141.00	133.50	126.00	118.50	111.00
650	660	189.90	182.40	174.90	167.40	159.90	152.40	144.90	137.40	129.90	122.40	114.90
660	670	193.80	186.30	178.80	171.30	163.80	156.30	148.80	141.30	133.80	126.30	118.80
39 percent of the excess over \$670 plus—												
\$670 and over		195.80	188.30	180.80	173.30	165.80	158.30	150.80	143.30	135.80	128.30	120.80

Income Tax Withholding Chart

Married Persons - Weekly Payroll Period

And the wages are—		And the number of withholding allowances claimed is—										
At least	But less than	0	1	2	3	4	5	6	7	8	9	10 or more
The amount of income tax to be withheld shall be—												
\$0	\$46	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
46	47	.10	0	0	0	0	0	0	0	0	0	0
47	48	.20	0	0	0	0	0	0	0	0	0	0
48	49	.40	0	0	0	0	0	0	0	0	0	0
49	50	.50	0	0	0	0	0	0	0	0	0	0
50	51	.70	0	0	0	0	0	0	0	0	0	0
51	52	.80	0	0	0	0	0	0	0	0	0	0
52	53	1.00	0	0	0	0	0	0	0	0	0	0
53	54	1.10	0	0	0	0	0	0	0	0	0	0
54	55	1.30	0	0	0	0	0	0	0	0	0	0
55	56	1.40	0	0	0	0	0	0	0	0	0	0
56	57	1.60	0	0	0	0	0	0	0	0	0	0
57	58	1.70	0	0	0	0	0	0	0	0	0	0
58	59	1.90	0	0	0	0	0	0	0	0	0	0
59	60	2.00	0	0	0	0	0	0	0	0	0	0
60	62	2.20	0	0	0	0	0	0	0	0	0	0
62	64	2.50	0	0	0	0	0	0	0	0	0	0
64	66	2.80	0	0	0	0	0	0	0	0	0	0
66	68	3.10	.20	0	0	0	0	0	0	0	0	0
68	70	3.40	.50	0	0	0	0	0	0	0	0	0
70	72	3.70	.80	0	0	0	0	0	0	0	0	0
72	74	4.00	1.10	0	0	0	0	0	0	0	0	0
74	76	4.30	1.40	0	0	0	0	0	0	0	0	0
76	78	4.60	1.70	0	0	0	0	0	0	0	0	0
78	80	4.90	2.00	0	0	0	0	0	0	0	0	0
80	82	5.20	2.30	0	0	0	0	0	0	0	0	0
82	84	5.50	2.60	0	0	0	0	0	0	0	0	0
84	86	5.80	2.90	.10	0	0	0	0	0	0	0	0
86	88	6.10	3.20	.40	0	0	0	0	0	0	0	0
88	90	6.40	3.50	.70	0	0	0	0	0	0	0	0
90	92	6.70	3.80	1.00	0	0	0	0	0	0	0	0
92	94	7.00	4.10	1.30	0	0	0	0	0	0	0	0
94	96	7.30	4.40	1.60	0	0	0	0	0	0	0	0
96	98	7.60	4.70	1.90	0	0	0	0	0	0	0	0
98	100	7.90	5.00	2.20	0	0	0	0	0	0	0	0
100	105	8.50	5.60	2.70	0	0	0	0	0	0	0	0
105	110	9.20	6.30	3.40	.50	0	0	0	0	0	0	0
110	115	10.00	7.10	4.20	1.30	0	0	0	0	0	0	0
115	120	10.70	7.80	4.90	2.00	0	0	0	0	0	0	0
120	125	11.50	8.60	5.70	2.80	0	0	0	0	0	0	0
125	130	12.20	9.30	6.40	3.50	.70	0	0	0	0	0	0
130	135	13.10	10.10	7.20	4.30	1.40	0	0	0	0	0	0
135	140	14.00	10.80	7.90	5.00	2.20	0	0	0	0	0	0
140	145	14.90	11.60	8.70	5.80	2.90	0	0	0	0	0	0
145	150	15.80	12.40	9.40	6.50	3.70	.80	0	0	0	0	0
150	160	17.20	13.70	10.60	7.70	4.80	1.90	0	0	0	0	0
160	170	19.00	15.50	12.10	9.20	6.30	3.40	.50	0	0	0	0
170	180	20.80	17.30	13.60	10.70	7.80	4.90	2.00	0	0	0	0
180	190	22.60	19.10	15.60	12.20	9.30	6.40	3.50	.60	0	0	0
190	200	24.40	20.90	17.40	14.00	10.80	7.90	5.00	2.10	0	0	0
200	210	26.20	22.70	19.20	15.80	12.30	9.40	6.50	3.60	.80	0	0
210	220	28.10	24.50	21.00	17.60	14.10	10.90	8.00	5.10	2.30	0	0
220	230	30.20	26.30	22.80	19.40	15.90	12.50	9.50	6.60	3.80	.90	0
230	240	32.30	28.30	24.60	21.20	17.70	14.30	11.00	8.10	5.30	2.40	0
240	250	34.40	30.40	26.40	23.00	19.50	16.10	12.60	9.60	6.80	3.90	1.00
250	260	36.50	32.50	28.50	24.80	21.30	17.90	14.40	11.10	8.30	5.40	2.50
260	270	38.60	34.60	30.60	26.60	23.10	19.70	16.20	12.70	9.80	6.90	4.00
270	280	40.70	36.70	32.70	28.60	24.90	21.50	18.00	14.50	11.30	8.40	5.50
280	290	42.80	38.80	34.80	30.70	26.70	23.30	19.80	16.30	12.90	9.90	7.00
290	300	45.10	40.90	36.90	32.80	28.80	25.10	21.60	18.10	14.70	11.40	8.50

(Continued on next page)

Married Persons - Weekly Payroll Period

And the wages are—		And the number of withholding allowances claimed is—										
At least	But less than	0	1	2	3	4	5	6	7	8	9	10 or more
The amount of income tax to be withheld shall be—												
\$300	\$310	\$47.50	\$43.00	\$39.00	\$34.90	\$30.90	\$26.90	\$23.40	\$19.90	\$16.50	\$13.00	\$10.00
310	320	49.90	45.30	41.10	37.00	33.00	28.90	25.20	21.70	18.30	14.80	11.50
320	330	52.30	47.70	43.20	39.10	35.10	31.00	27.00	23.50	20.10	16.60	13.20
330	340	54.70	50.10	45.50	41.20	37.20	33.10	29.10	25.30	21.90	18.40	15.00
340	350	57.10	52.50	47.90	43.30	39.30	35.20	31.20	27.20	23.70	20.20	16.80
350	360	59.50	54.90	50.30	45.70	41.40	37.30	33.30	29.30	25.50	22.00	18.60
360	370	61.90	57.30	52.70	48.10	43.50	39.40	35.40	31.40	27.30	23.80	20.40
370	380	64.60	59.70	55.10	50.50	45.90	41.50	37.50	33.50	29.40	25.60	22.20
380	390	67.40	62.10	57.50	52.90	48.30	43.70	39.60	35.60	31.50	27.50	24.00
390	400	70.20	64.80	59.90	55.30	50.70	46.10	41.70	37.70	33.60	29.60	25.80
400	410	73.00	67.60	62.30	57.70	53.10	48.50	43.80	39.80	35.70	31.70	27.60
410	420	75.80	70.40	65.00	60.10	55.50	50.90	46.20	41.90	37.80	33.80	29.70
420	430	78.60	73.20	67.80	62.50	57.90	53.30	48.60	44.00	39.90	35.90	31.80
430	440	81.40	76.00	70.60	65.20	60.30	55.70	51.00	46.40	42.00	38.00	33.90
440	450	84.20	78.80	73.40	68.00	62.70	58.10	53.40	48.80	44.20	40.10	36.00
450	460	87.00	81.60	76.20	70.80	65.40	60.50	55.80	51.20	46.60	42.20	38.10
460	470	90.20	84.40	79.00	73.60	68.20	62.90	58.20	53.60	49.00	44.40	40.20
470	480	93.40	87.30	81.80	76.40	71.00	65.60	60.60	56.00	51.40	46.80	42.30
480	490	96.60	90.50	84.80	79.20	73.80	68.40	63.10	58.40	53.80	49.20	44.60
490	500	99.80	93.70	87.50	82.00	76.60	71.20	65.90	60.80	56.20	51.60	47.00
500	510	103.00	96.90	90.70	84.80	79.40	74.00	68.70	63.30	58.60	54.00	49.40
510	520	106.20	100.10	93.90	87.70	82.20	76.80	71.50	66.10	61.00	56.40	51.80
520	530	109.40	103.30	97.10	90.90	85.00	79.60	74.30	68.90	63.50	58.80	54.20
530	540	112.60	106.50	100.30	94.10	88.00	82.40	77.10	71.70	66.30	61.20	56.60
540	550	115.80	109.70	103.50	97.30	91.20	85.20	79.90	74.50	69.10	63.70	59.00
550	560	119.00	112.90	106.70	100.50	94.40	88.20	82.70	77.30	71.90	66.50	61.40
560	570	122.70	116.10	109.90	103.70	97.60	91.40	85.50	80.10	74.70	69.30	63.90
570	580	126.40	119.30	113.10	106.90	100.80	94.60	88.50	82.90	77.50	72.10	66.70
580	590	130.10	123.00	116.30	110.10	104.00	97.80	91.70	85.70	80.30	74.90	69.50
590	600	133.80	126.70	119.50	113.30	107.20	101.00	94.90	88.70	83.10	77.70	72.30
600	610	137.50	130.40	123.20	116.50	110.40	104.20	98.10	91.90	85.90	80.50	75.10
610	620	141.20	134.10	126.90	119.80	113.60	107.40	101.30	95.10	89.00	83.30	77.90
620	630	144.90	137.80	130.60	123.50	116.80	110.60	104.50	98.30	92.20	86.10	80.70
630	640	148.60	141.50	134.30	127.20	120.10	113.80	107.70	101.50	95.40	89.20	83.50
640	650	152.30	145.20	138.00	130.90	123.80	117.00	110.90	104.70	98.60	92.40	86.30
650	660	156.00	148.90	141.70	134.60	127.50	120.40	114.10	107.90	101.80	95.60	89.50
660	670	159.70	152.60	145.40	138.30	131.20	124.10	117.30	111.10	105.00	98.80	92.70
670	680	163.40	156.30	149.10	142.00	134.90	127.80	120.70	114.30	108.20	102.00	95.90
680	690	167.10	160.00	152.80	145.70	138.60	131.50	124.40	117.50	111.40	105.20	99.10
690	700	170.80	163.70	156.50	149.40	142.30	135.20	128.10	121.00	114.60	108.40	102.30
700	710	174.50	167.40	160.20	153.10	146.00	138.90	131.80	124.70	117.80	111.60	105.50
710	720	178.20	171.10	163.90	156.80	149.70	142.60	135.50	128.40	121.20	114.80	108.70
720	730	181.90	174.80	167.60	160.50	153.40	146.30	139.20	132.10	124.90	118.00	111.90
730	740	185.60	178.50	171.30	164.20	157.10	150.00	142.90	135.80	128.60	121.50	115.10
740	750	189.30	182.20	175.00	167.90	160.80	153.70	146.60	139.50	132.30	125.20	118.30
750	760	193.00	185.90	178.70	171.60	164.50	157.40	150.30	143.20	136.00	128.90	121.80
760	770	196.70	189.60	182.40	175.30	168.20	161.10	154.00	146.90	139.70	132.60	125.50
770	780	200.40	193.30	186.10	179.00	171.90	164.80	157.70	150.60	143.40	136.30	129.20
780	790	204.10	197.00	189.80	182.70	175.60	168.50	161.40	154.30	147.10	140.00	132.90
790	800	207.80	200.70	193.50	186.40	179.30	172.20	165.10	158.00	150.80	143.70	136.60
800	810	211.50	204.40	197.20	190.10	183.00	175.90	168.80	161.70	154.50	147.40	140.30
810	820	215.20	208.10	200.90	193.80	186.70	179.60	172.50	165.40	158.20	151.10	144.00
820	830	218.90	211.80	204.60	197.50	190.40	183.30	176.20	169.10	161.90	154.80	147.70
830	840	222.60	215.50	208.30	201.20	194.10	187.00	179.90	172.80	165.60	158.50	151.40
840	850	226.30	219.20	212.00	204.90	197.80	190.70	183.60	176.50	169.30	162.20	155.10
37 percent of the excess over \$850 plus—												
\$850 and over		228.10	221.00	213.90	206.80	199.70	192.50	185.40	178.30	171.20	164.10	157.00

The FICA withholding table, for employee's share of tax only, is extended to only \$100 of wages. To compute the FICA withholding for wages over \$100 either

multiply the total wage by 6.13% or use the multiples of the tax on \$100 wages. The multiples are listed at the end of the table.

Example 1.—Wage paid subject to FICA is \$437.82. The amount of FICA tax to be withheld is:

on \$400.00	\$24.52
on 37.82	2.32
total	\$26.84

Example 2.—Wage paid subject to FICA is \$1,289.62. The amount of FICA tax to be withheld is:

on \$1,000.00	\$61.30
on 200.00	12.26
on 89.62	5.49
total	\$79.05

Social Security Employee Tax Table

6.13 percent employee tax deductions

Wages		Tax to be withheld	Wages		Tax to be withheld	Wages		Tax to be withheld	Wages		Tax to be withheld
At least	But less than		At least	But less than		At least	But less than		At least	But less than	
\$0.00	\$0.09	\$0.00	\$8.73	\$8.90	\$.54	\$17.54	\$17.70	\$1.08	\$26.35	\$26.51	\$1.62
.09	.25	.01	8.90	9.06	.55	17.70	17.87	1.09	26.51	26.68	1.63
.25	.41	.02	9.06	9.22	.56	17.87	18.03	1.10	26.68	26.84	1.64
.41	.58	.03	9.22	9.39	.57	18.03	18.19	1.11	26.84	27.00	1.65
.58	.74	.04	9.39	9.55	.58	18.19	18.36	1.12	27.00	27.17	1.66
.74	.90	.05	9.55	9.71	.59	18.36	18.52	1.13	27.17	27.33	1.67
.90	1.07	.06	9.71	9.87	.60	18.52	18.68	1.14	27.33	27.49	1.68
1.07	1.23	.07	9.87	10.04	.61	18.68	18.85	1.15	27.49	27.66	1.69
1.23	1.39	.08	10.04	10.20	.62	18.85	19.01	1.16	27.66	27.82	1.70
1.39	1.55	.09	10.20	10.36	.63	19.01	19.17	1.17	27.82	27.98	1.71
1.55	1.72	.10	10.36	10.53	.64	19.17	19.34	1.18	27.98	28.15	1.72
1.72	1.88	.11	10.53	10.69	.65	19.34	19.50	1.19	28.15	28.31	1.73
1.88	2.04	.12	10.69	10.85	.66	19.50	19.66	1.20	28.31	28.47	1.74
2.04	2.21	.13	10.85	11.02	.67	19.66	19.83	1.21	28.47	28.63	1.75
2.21	2.37	.14	11.02	11.18	.68	19.83	19.99	1.22	28.63	28.80	1.76
2.37	2.53	.15	11.18	11.34	.69	19.99	20.15	1.23	28.80	28.96	1.77
2.53	2.70	.16	11.34	11.51	.70	20.15	20.31	1.24	28.96	29.12	1.78
2.70	2.86	.17	11.51	11.67	.71	20.31	20.48	1.25	29.12	29.29	1.79
2.86	3.02	.18	11.67	11.83	.72	20.48	20.64	1.26	29.29	29.45	1.80
3.02	3.19	.19	11.83	12.00	.73	20.64	20.80	1.27	29.45	29.61	1.81
3.19	3.35	.20	12.00	12.16	.74	20.80	20.97	1.28	29.61	29.78	1.82
3.35	3.51	.21	12.16	12.32	.75	20.97	21.13	1.29	29.78	29.94	1.83
3.51	3.68	.22	12.32	12.48	.76	21.13	21.29	1.30	29.94	30.10	1.84
3.68	3.84	.23	12.48	12.65	.77	21.29	21.46	1.31	30.10	30.27	1.85
3.84	4.00	.24	12.65	12.81	.78	21.46	21.62	1.32	30.27	30.43	1.86
4.00	4.16	.25	12.81	12.97	.79	21.62	21.78	1.33	30.43	30.59	1.87
4.16	4.33	.26	12.97	13.14	.80	21.78	21.95	1.34	30.59	30.76	1.88
4.33	4.49	.27	13.14	13.30	.81	21.95	22.11	1.35	30.76	30.92	1.89
4.49	4.65	.28	13.30	13.46	.82	22.11	22.27	1.36	30.92	31.08	1.90
4.65	4.82	.29	13.46	13.63	.83	22.27	22.44	1.37	31.08	31.24	1.91
4.82	4.98	.30	13.63	13.79	.84	22.44	22.60	1.38	31.24	31.41	1.92
4.98	5.14	.31	13.79	13.95	.85	22.60	22.76	1.39	31.41	31.57	1.93
5.14	5.31	.32	13.95	14.12	.86	22.76	22.93	1.40	31.57	31.73	1.94
5.31	5.47	.33	14.12	14.28	.87	22.93	23.09	1.41	31.73	31.90	1.95
5.47	5.63	.34	14.28	14.44	.88	23.09	23.25	1.42	31.90	32.06	1.96
5.63	5.80	.35	14.44	14.61	.89	23.25	23.41	1.43	32.06	32.22	1.97
5.80	5.96	.36	14.61	14.77	.90	23.41	23.58	1.44	32.22	32.39	1.98
5.96	6.12	.37	14.77	14.93	.91	23.58	23.74	1.45	32.39	32.55	1.99
6.12	6.29	.38	14.93	15.09	.92	23.74	23.90	1.46	32.55	32.71	2.00
6.29	6.45	.39	15.09	15.26	.93	23.90	24.07	1.47	32.71	32.88	2.01
6.45	6.61	.40	15.26	15.42	.94	24.07	24.23	1.48	32.88	33.04	2.02
6.61	6.77	.41	15.42	15.58	.95	24.23	24.39	1.49	33.04	33.20	2.03
6.77	6.94	.42	15.58	15.75	.96	24.39	24.56	1.50	33.20	33.37	2.04
6.94	7.10	.43	15.75	15.91	.97	24.56	24.72	1.51	33.37	33.53	2.05
7.10	7.26	.44	15.91	16.07	.98	24.72	24.88	1.52	33.53	33.69	2.06
7.26	7.43	.45	16.07	16.24	.99	24.88	25.05	1.53	33.69	33.85	2.07
7.43	7.59	.46	16.24	16.40	1.00	25.05	25.21	1.54	33.85	34.02	2.08
7.59	7.75	.47	16.40	16.56	1.01	25.21	25.37	1.55	34.02	34.18	2.09
7.75	7.92	.48	16.56	16.73	1.02	25.37	25.54	1.56	34.18	34.34	2.10
7.92	8.08	.49	16.73	16.89	1.03	25.54	25.70	1.57	34.34	34.51	2.11
8.08	8.24	.50	16.89	17.05	1.04	25.70	25.86	1.58	34.51	34.67	2.12
8.24	8.41	.51	17.05	17.22	1.05	25.86	26.02	1.59	34.67	34.83	2.13
8.41	8.57	.52	17.22	17.38	1.06	26.02	26.19	1.60	34.83	35.00	2.14
8.57	8.73	.53	17.38	17.54	1.07	26.19	26.35	1.61	35.00	35.16	2.15

Social Security Employee Tax Table-Continued

6.13 percent employee tax deductions

Wages		Tax to be withheld	Wages		Tax to be withheld	Wages		Tax to be withheld	Wages		Tax to be withheld
At least	But less than		At least	But less than		At least	But less than		At least	But less than	
\$35.16	\$35.32	\$2.16	\$45.93	\$46.09	\$2.82	\$56.69	\$56.86	\$3.48	\$67.46	\$67.62	\$4.14
35.32	35.49	2.17	46.09	46.25	2.83	56.86	57.02	3.49	67.62	67.79	4.15
35.49	35.65	2.18	46.25	46.42	2.84	57.02	57.18	3.50	67.79	67.95	4.16
35.65	35.81	2.19	46.42	46.58	2.85	57.18	57.35	3.51	67.95	68.11	4.17
35.81	35.98	2.20	46.58	46.74	2.86	57.35	57.51	3.52	68.11	68.28	4.18
35.98	36.14	2.21	46.74	46.91	2.87	57.51	57.67	3.53	68.28	68.44	4.19
36.14	36.30	2.22	46.91	47.07	2.88	57.67	57.84	3.54	68.44	68.60	4.20
36.30	36.47	2.23	47.07	47.23	2.89	57.84	58.00	3.55	68.60	68.77	4.21
36.47	36.63	2.24	47.23	47.39	2.90	58.00	58.16	3.56	68.77	68.93	4.22
36.63	36.79	2.25	47.39	47.56	2.91	58.16	58.32	3.57	68.93	69.09	4.23
36.79	36.95	2.26	47.56	47.72	2.92	58.32	58.49	3.58	69.09	69.25	4.24
36.95	37.12	2.27	47.72	47.88	2.93	58.49	58.65	3.59	69.25	69.42	4.25
37.12	37.28	2.28	47.88	48.05	2.94	58.65	58.81	3.60	69.42	69.58	4.26
37.28	37.44	2.29	48.05	48.21	2.95	58.81	58.98	3.61	69.58	69.74	4.27
37.44	37.61	2.30	48.21	48.37	2.96	58.98	59.14	3.62	69.74	69.91	4.28
37.61	37.77	2.31	48.37	48.54	2.97	59.14	59.30	3.63	69.91	70.07	4.29
37.77	37.93	2.32	48.54	48.70	2.98	59.30	59.47	3.64	70.07	70.23	4.30
37.93	38.10	2.33	48.70	48.86	2.99	59.47	59.63	3.65	70.23	70.40	4.31
38.10	38.26	2.34	48.86	49.03	3.00	59.63	59.79	3.66	70.40	70.56	4.32
38.26	38.42	2.35	49.03	49.19	3.01	59.79	59.96	3.67	70.56	70.72	4.33
38.42	38.59	2.36	49.19	49.35	3.02	59.96	60.12	3.68	70.72	70.89	4.34
38.59	38.75	2.37	49.35	49.52	3.03	60.12	60.28	3.69	70.89	71.05	4.35
38.75	38.91	2.38	49.52	49.68	3.04	60.28	60.45	3.70	71.05	71.21	4.36
38.91	39.08	2.39	49.68	49.84	3.05	60.45	60.61	3.71	71.21	71.38	4.37
39.08	39.24	2.40	49.84	50.00	3.06	60.61	60.77	3.72	71.38	71.54	4.38
39.24	39.40	2.41	50.00	50.17	3.07	60.77	60.93	3.73	71.54	71.70	4.39
39.40	39.56	2.42	50.17	50.33	3.08	60.93	61.10	3.74	71.70	71.86	4.40
39.56	39.73	2.43	50.33	50.49	3.09	61.10	61.26	3.75	71.86	72.03	4.41
39.73	39.89	2.44	50.49	50.66	3.10	61.26	61.42	3.76	72.03	72.19	4.42
39.89	40.05	2.45	50.66	50.82	3.11	61.42	61.59	3.77	72.19	72.35	4.43
40.05	40.22	2.46	50.82	50.98	3.12	61.59	61.75	3.78	72.35	72.52	4.44
40.22	40.38	2.47	50.98	51.15	3.13	61.75	61.91	3.79	72.52	72.68	4.45
40.38	40.54	2.48	51.15	51.31	3.14	61.91	62.08	3.80	72.68	72.84	4.46
40.54	40.71	2.49	51.31	51.47	3.15	62.08	62.24	3.81	72.84	73.01	4.47
40.71	40.87	2.50	51.47	51.64	3.16	62.24	62.40	3.82	73.01	73.17	4.48
40.87	41.03	2.51	51.64	51.80	3.17	62.40	62.57	3.83	73.17	73.33	4.49
41.03	41.20	2.52	51.80	51.96	3.18	62.57	62.73	3.84	73.33	73.50	4.50
41.20	41.36	2.53	51.96	52.13	3.19	62.73	62.89	3.85	73.50	73.66	4.51
41.36	41.52	2.54	52.13	52.29	3.20	62.89	63.06	3.86	73.66	73.82	4.52
41.52	41.69	2.55	52.29	52.45	3.21	63.06	63.22	3.87	73.82	73.99	4.53
41.69	41.85	2.56	52.45	52.62	3.22	63.22	63.38	3.88	73.99	74.15	4.54
41.85	42.01	2.57	52.62	52.78	3.23	63.38	63.54	3.89	74.15	74.31	4.55
42.01	42.17	2.58	52.78	52.94	3.24	63.54	63.71	3.90	74.31	74.47	4.56
42.17	42.34	2.59	52.94	53.10	3.25	63.71	63.87	3.91	74.47	74.64	4.57
42.34	42.50	2.60	53.10	53.27	3.26	63.87	64.03	3.92	74.64	74.80	4.58
42.50	42.66	2.61	53.27	53.43	3.27	64.03	64.20	3.93	74.80	74.96	4.59
42.66	42.83	2.62	53.43	53.59	3.28	64.20	64.36	3.94	74.96	75.13	4.60
42.83	42.99	2.63	53.59	53.76	3.29	64.36	64.52	3.95	75.13	75.29	4.61
42.99	43.15	2.64	53.76	53.92	3.30	64.52	64.69	3.96	75.29	75.45	4.62
43.15	43.32	2.65	53.92	54.08	3.31	64.69	64.85	3.97	75.45	75.62	4.63
43.32	43.48	2.66	54.08	54.25	3.32	64.85	65.01	3.98	75.62	75.78	4.64
43.48	43.64	2.67	54.25	54.41	3.33	65.01	65.18	3.99	75.78	75.94	4.65
43.64	43.81	2.68	54.41	54.57	3.34	65.18	65.34	4.00	75.94	76.11	4.66
43.81	43.97	2.69	54.57	54.74	3.35	65.34	65.50	4.01	76.11	76.27	4.67
43.97	44.13	2.70	54.74	54.90	3.36	65.50	65.67	4.02	76.27	76.43	4.68
44.13	44.30	2.71	54.90	55.06	3.37	65.67	65.83	4.03	76.43	76.60	4.69
44.30	44.46	2.72	55.06	55.23	3.38	65.83	65.99	4.04	76.60	76.76	4.70
44.46	44.62	2.73	55.23	55.39	3.39	65.99	66.16	4.05	76.76	76.92	4.71
44.62	44.78	2.74	55.39	55.55	3.40	66.16	66.32	4.06	76.92	77.08	4.72
44.78	44.95	2.75	55.55	55.71	3.41	66.32	66.48	4.07	77.08	77.25	4.73
44.95	45.11	2.76	55.71	55.88	3.42	66.48	66.64	4.08	77.25	77.41	4.74
45.11	45.27	2.77	55.88	56.04	3.43	66.64	66.81	4.09	77.41	77.57	4.75
45.27	45.44	2.78	56.04	56.20	3.44	66.81	66.97	4.10	77.57	77.74	4.76
45.44	45.60	2.79	56.20	56.37	3.45	66.97	67.13	4.11	77.74	77.90	4.77
45.60	45.76	2.80	56.37	56.53	3.46	67.13	67.30	4.12	77.90	78.06	4.78
45.76	45.93	2.81	56.53	56.69	3.47	67.30	67.46	4.13	78.06	78.23	4.79

Social Security Employee Tax Table—Continued

6.13 percent employee tax deductions

Wages			Wages			Wages			Wages		
At least	But less than	Tax to be withheld	At least	But less than	Tax to be withheld	At least	But less than	Tax to be withheld	At least	But less than	Tax to be withheld
\$78.23	\$78.39	\$4.80	\$84.26	\$84.43	\$5.17	\$90.30	\$90.46	\$5.54	\$96.33	\$96.50	\$5.91
78.39	78.55	4.81	84.43	84.59	5.18	90.46	90.62	5.55	96.50	96.66	5.92
78.55	78.72	4.82	84.59	84.75	5.19	90.62	90.79	5.56	96.66	96.82	5.93
78.72	78.88	4.83	84.75	84.92	5.20	90.79	90.95	5.57	96.82	96.99	5.94
78.88	79.04	4.84	84.92	85.08	5.21	90.95	91.11	5.58	96.99	97.15	5.95
79.04	79.21	4.85	85.08	85.24	5.22	91.11	91.28	5.59	97.15	97.31	5.96
79.21	79.37	4.86	85.24	85.40	5.23	91.28	91.44	5.60	97.31	97.48	5.97
79.37	79.53	4.87	85.40	85.57	5.24	91.44	91.60	5.61	97.48	97.64	5.98
79.53	79.70	4.88	85.57	85.73	5.25	91.60	91.77	5.62	97.64	97.80	5.99
79.70	79.86	4.89	85.73	85.89	5.26	91.77	91.93	5.63	97.80	97.97	6.00
79.86	80.02	4.90	85.89	86.06	5.27	91.93	92.09	5.64	97.97	98.13	6.01
80.02	80.18	4.91	86.06	86.22	5.28	92.09	92.26	5.65	98.13	98.29	6.02
80.18	80.35	4.92	86.22	86.38	5.29	92.26	92.42	5.66	98.29	98.46	6.03
80.35	80.51	4.93	86.38	86.55	5.30	92.42	92.58	5.67	98.46	98.62	6.04
80.51	80.67	4.94	86.55	86.71	5.31	92.58	92.75	5.68	98.62	98.78	6.05
80.67	80.84	4.95	86.71	86.87	5.32	92.75	92.91	5.69	98.78	98.94	6.06
80.84	81.00	4.96	86.87	87.04	5.33	92.91	93.07	5.70	98.94	99.11	6.07
81.00	81.16	4.97	87.04	87.20	5.34	93.07	93.24	5.71	99.11	99.27	6.08
81.16	81.33	4.98	87.20	87.36	5.35	93.24	93.40	5.72	99.27	99.43	6.09
81.33	81.49	4.99	87.36	87.53	5.36	93.40	93.56	5.73	99.43	99.60	6.10
81.49	81.65	5.00	87.53	87.69	5.37	93.56	93.72	5.74	99.60	99.76	6.11
81.65	81.82	5.01	87.69	87.85	5.38	93.72	93.89	5.75	99.76	99.92	6.12
81.82	81.98	5.02	87.85	88.01	5.39	93.89	94.05	5.76	99.92	100.00	6.13
81.98	82.14	5.03	88.01	88.18	5.40	94.05	94.21	5.77	The multiples of the withholding for FICA on \$100 are		
82.14	82.31	5.04	88.18	88.34	5.41	94.21	94.38	5.78			
82.31	82.47	5.05	88.34	88.50	5.42	94.38	94.54	5.79			
82.47	82.63	5.06	88.50	88.67	5.43	94.54	94.70	5.80	Wage	Tax to be withheld	
82.63	82.79	5.07	88.67	88.83	5.44	94.70	94.87	5.81	\$100	\$6.13	
82.79	82.96	5.08	88.83	88.99	5.45	94.87	95.03	5.82	200	12.26	
82.96	83.12	5.09	88.99	89.16	5.46	95.03	95.19	5.83	300	18.39	
83.12	83.28	5.10	89.16	89.32	5.47	95.19	95.36	5.84	400	24.52	
83.28	83.45	5.11	89.32	89.48	5.48	95.36	95.52	5.85	500	30.65	
83.45	83.61	5.12	89.48	89.65	5.49	95.52	95.68	5.86	600	36.78	
83.61	83.77	5.13	89.65	89.81	5.50	95.68	95.85	5.87	700	42.91	
83.77	83.94	5.14	89.81	89.97	5.51	95.85	96.01	5.88	800	49.04	
83.94	84.10	5.15	89.97	90.14	5.52	96.01	96.17	5.89	900	55.17	
84.10	84.26	5.16	90.14	90.30	5.53	96.17	96.33	5.90	1,000	61.30	

Payroll Checks

U PAYUM COMPANY	301 North Clark	Cape Girardeau, MO 63701
	Date _____	Ck.No. _____
Pay to the order of _____		Amount _____
_____ Dollars		
_____ Treasurer		

HRS. WORKED	PAY RATE	DEDUCTIONS:			
		GROSS PAY	WITHHOLDING	FICA	NET PAY

U PAYUM COMPANY	301 North Clark	Cape Girardeau, MO 63701
	Date _____	Ck.No. _____
Pay to the order of _____		Amount _____
_____ Dollars		
_____ Treasurer		

HRS. WORKED	PAY RATE	DEDUCTIONS:			
		GROSS PAY	WITHHOLDING	FICA	NET PAY

U PAYUM COMPANY	301 North Clark	Cape Girardeau, MO 63701
	Date _____	Ck.No. _____
Pay to the order of _____		Amount _____
_____ Dollars		
_____ Treasurer		

HRS. WORKED	PAY RATE	DEDUCTIONS:			
		GROSS PAY	WITHHOLDING	FICA	NET PAY

Department _____

PAY PERIOD: Beginning _____ 19 ____ Ending _____ 19 ____

Date of Pay _____ 19 ____

[illegible]

Reg.-Regular
O.T.-Overtime

491

492

HO 5

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Unit VIII - Numerical Clerical Records
Lesson 8 - Payroll

ASSIGNMENT SHEET 1: Figuring Gross Pay (Piece Rate)

Directions: Complete the following chart. Each employee earns \$2.90 an hour and works an 8-hour day, unless otherwise noted. Each employee receives \$.50 per piece as a bonus for all pieces over 45 a day.

EMPLOYEE	No. of Pieces of Work					Total Bonus Pieces	Base Pay	Bonus	Gross Pay
	M	TU	W	TH	F				
Brown, G.	54	56	72	45	61				
Dobbs, F.	45	65	55	67	59				
Fox, J.	63	65	67	68	71				
Gerlach, G.	71	63	69	70	70				
Hart, M.	62	64	66	67	69				
Lohman, S.	$\frac{1}{2}$ day 39	45	52	52	63				
Long, E.	69	40	68	68	71				
Moore, L.	67	68	65	62	62				
Norris, A.	74	77	74	72	75				
Owens, B.	67	68	65	62	62				
Parr, J.	$\frac{1}{2}$ day 32	56	58	56	60				
Pine, B.	55	56	54	50	45				
Roberts, M.	43	42	41	51	52				
Singer, J.	44	44	47	50	51				
Sink, S.	48	49	53	56	$\frac{1}{2}$ day 29				
Trent, J.	45	51	51	51	53				
Vickery, M.	60	59	62	58	55				
Wing, C.	51	61	65	62	41				
TOTALS									

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Unit VIII - Numerical Clerical Records
Lesson 8 - Payroll

ASSIGNMENT SHEET 2: Payroll Problems

Directions:

1. Figure the following payroll problem for the weekly payroll for Acme Warehouse Company. Overtime is time-and-a-half and anything over 40 hours a week is considered overtime.
2. Figure deductions for social security and federal withholding.
3. Write checks for these employees.

Problem 1

Benjamin Holms: hourly rate, \$3.85; hours worked 42; married; 3 dependents

Regular earnings	\$ _____	Fed. _____	Check is: _____
Overtime earnings	\$ _____	S.S. _____	
Gross earnings	\$ _____		

Problem 2

Ronald Martin: hourly rate, \$3.60; hours worked 44; married; 4 dependents

Regular earnings	\$ _____	Fed. _____	Check is: _____
Overtime earnings	\$ _____	S.S. _____	
Gross earnings	\$ _____		

Problem 3

Edward Riggs: hourly rate, \$3.85; hours worked 43; married; 4 dependents

Regular earnings	\$ _____	Fed. _____	Check is: _____
Overtime earnings	\$ _____	S.S. _____	
Gross earnings	\$ _____		

Problem 4

Alan Barnett: regular rate, \$4.20; hours worked 44; married; 3 dependents

Regular earnings	\$ _____	Fed. _____	Check is: _____
Overtime earnings	\$ _____	S.S. _____	
Gross earnings	\$ _____		

Problem 5

George Carter: regular rate \$3.75; hours worked 48; bachelor, 0 dependents

Regular earnings	\$ _____	Fed.	_____	Check is:	_____
Overtime earnings	\$ _____	S.S.	_____		
Gross earnings	\$ _____				

Problem 6

Victor Delagdo: regular rate, \$3.75; hours worked, 46; married; 5 dependents

Regular earnings	\$ _____	Fed.	_____	Check is:	_____
Overtime earnings	\$ _____	S.S.	_____		
Gross earnings	\$ _____				

Problem 7

Mary Hodes: salary \$230.00 per week; hours worked 45; married; 4 dependents. Figure overtime for a salaried person by arriving at an hourly rate based on a 40 hour week.

Regular earnings	\$ _____	Fed.	_____	Check is:	_____
Overtime earnings	\$ _____	S.S.	_____		
Gross earnings	\$ _____				

Problem 8

Luisa Ocasio: salary \$325.00 per week; hours worked 45; married; 4 dependents

Regular earnings	\$ _____	Fed.	_____	Check is:	_____
Overtime earnings	\$ _____	S.S.	_____		
Gross earnings	\$ _____				

Problem 9

Carl Fisher sold \$3,900 worth of goods; he is paid a commission of 6 percent on all sales; married; 2 dependents

Total sales	\$ _____	Fed.	_____	Check is:	_____
Commission rate	\$ _____	S.S.	_____		
Gross earnings	\$ _____				

Problem 10

Nancy Clansen receives a commission of 5 percent on all sales that she makes. This week she sold \$4,200 worth of goods; married; 2 dependents

Total sales	\$ _____	Fed.	_____	Check is:	_____
Commission rate	\$ _____	S.S.	_____		
Gross earnings	\$ _____				

Problem 11

Harold Youngman sold \$5,400 worth of goods on which he receives a commission of 6 percent; married; 4 dependents

Total sales	\$ _____	Fed.	_____	Check is:	_____
Commission rate	\$ _____	S.S.	_____		
Gross earnings	\$ _____				

Problem 12

Sandra Rust has a photographic service. She receives a 6 percent commission on her regular sales and a 12 percent commission on a newly introduced special photo service. This week her regular sales amounted to \$2,000; special sales totaled \$825; single; 1 dependent

Regular sales	\$ _____	Fed.	_____	Check is:	_____
Regular commission	\$ _____	S.S.	_____		
	\$ _____		(subtotal)		
Special sales	\$ _____				
Special commission	\$ _____				
	\$ _____		(subtotal)		
Gross earnings (total)	\$ _____				

Unit VIII - Numerical Clerical Records
Lesson 8 - Payroll

ASSIGNMENT SHEET 3: Payroll Practice I

Directions: Figure the payroll for the week ending May 7. Write the payroll checks. Be sure to keep the names of the staff in alphabetical order.

Information:

The U Payum Company has the following staff of employees: Joan Carroll, Mike Duncan, Mary Joering, Alice Kessel, Edith Lowes, Bertha Maier, Gerald Norman, Arthur Orlander, Janet Sauer, and Mildred Turner.

This company pays overtime for any work over 8 hours a day and for work on Saturdays.

For purposes of this lesson, a person with 1 or no dependents is single.

For the pay period ending on Friday, May 7, the following hours were recorded:

	Mon	Tues	Wed	Thurs	Fri	Sat
Joan C.	8	4	10	6	10	3
Mike D.	8	8	8	8	8	4
Mary J.	8	8	8	10	4	8
Alice K.	6	8	4	4	3	0
Edith L.	4	8	10	8	8	4
Bertha M.	4	9	8	5	10	3
Gerald N.	8	8	8	8	8	8
Arthur O.	7	8	8	6	8	10
Janet S.	8	6	8	4	10	4
Mildred T.	8	0	8	10	5	4

Joan Carroll 489-62-8543
Dependents: 3 Pay Rate: \$4.50

Mike Duncan 329-61-8532
Dependents: 4 Pay Rate: \$6.50
Insurance \$15.25 weekly

Mary Joering 500-68-9754
Dependents: 1 Pay Rate: \$4.00

Alice Kessel 534-43-8756
Dependents: 4 Pay Rate: \$4.80

Edith Lowes 438-21-6870
Dependents: 0 Pay rate: \$6.80
Payroll savings \$5.00 weekly

Bertha Maier 390-52-9876
Dependents: 2 Pay Rate: \$3.20

Gerald Norman 498-68-4213
Dependents: 0 Pay rate: \$3.50
Single

Arthur Orlander 685-95-3856
Dependents: 3 Pay Rate: \$6.00

Janet Sauer 534-64-0921
Dependents: 2 Pay Rate: \$4.60

Mildred Turner 643-43-0123
Dependents: 4 Pay Rate: \$5.30

Unit VIII - Numerical Clerical Records
Lesson 8 - Payroll

ASSIGNMENT SHEET 4: Payroll Practice II

Directions: Figure payroll for the week ending May 14. Using the information from the chart below and the personnel records from AS 3, complete the payroll chart.

For the pay period ending on Friday, May 14, the following hours were recorded:

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Joan C.	8	4	8	8	8	10
Mike D.	8	8	10	9	8	4
Mary J.	0	8	8	8	8	3
Alice K.	10	4	8	0	8	4
Edith L.	8	6	8	8	10	3
Bertha M.	8	8	8	8	8	8
Gerald N.	6	7	9	10	5	10
Arthur O.	8	0	8	6	10	4
Janet S.	10	4	4	4	10	10
Mildred T.	8	8	8	8	8	4

Unit VIII - Numerical Clerical Records
Lesson 8 - Payroll

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet 1:

EMPLOYEE	No. of Pieces of Work					Total Bonus Pieces	Base Pay	Bonus	Gross Pay
	M	TU	W	TH	F				
Brown, G.	54 9	56 11	72 27	45	61 16	63	\$116.00	\$31.50	\$147.50
Dobbs, F.	45	65	55	67	59	66	116.00	33.00	149.00
Fox, J.	63	65	67	68	71	109	116.00	54.50	170.50
Gerlach, G.	71	63	69	70	70	115	116.00	59.00	175.00
Hart, M.	62	64	66	67	69	103	116.00	51.50	167.50
Lohman, S.	½ day 39	45	52	52	63	32	104.40	16.00	120.40
Long, E.	69	40	68	68	71	96	116.00	48.00	164.00
Moore, L.	67	68	65	62	62	99	116.00	49.50	165.50
Norris, A.	74	77	74	72	75	147	116.00	73.50	189.50
Owens, B.	67	68	65	62	62	99	116.00	49.50	165.50
Parr, J.	½ day 32	56	58	56	60	50	104.40	25.00	129.40
Pine, B.	55	56	54	50	45	35	116.00	17.50	133.50
Roberts, M.	43	42	41	51	52	13	116.00	6.50	122.50
Singer, J.	44	44	47	50	51	13	116.00	6.50	122.50
Sink, S.	48	49	53	56	½ day 29	26	104.40	13.00	117.40
Trent, J.	45	51	51	51	53	26	116.00	13.00	129.00
Vickery, M.	60	59	62	58	55	69	116.00	34.50	150.50
Wing, C.	51	61	65	62	41	59	116.00	29.50	145.50
TOTALS	989	1029	1084	1067	1049	1223	\$2053.20	\$611.50	\$2664.70

Assignment Sheet 2:

Problem 1

Benjamin Holms: hourly rate, \$3.85; hours worked 42; married; 3 dependents

Regular earnings	\$ <u>154.00</u>	Fed.	<u>9.20</u>	Check is:	<u>146.20</u>
Overtime earnings	\$ <u>11.55</u>	S.S.	<u>10.15</u>		
Gross earnings	\$ <u>165.55</u>				

Problem 2

Ronald Martin: hourly rate, \$3.60; hours worked 44; married; 4 dependents

Regular earnings	\$ <u>144.00</u>	Fed.	<u>6.30</u>	Check is:	<u>149.15</u>
Overtime earnings	\$ <u>21.60</u>	S.S.	<u>10.15</u>		
Gross earnings	\$ <u>165.60</u>				

Problem 3

Edward Riggs: hourly rate, \$3.85; hours worked 43; married; 4 dependents

Regular earnings	\$ <u>154.00</u>	Fed.	<u>7.80</u>	Check is:	<u>153.03</u>
Overtime earnings	\$ <u>12.33</u>	S.S.	<u>10.20</u>		
Gross earnings	\$ <u>176.33</u>				

Problem 4

Alan Barnett: regular rate, \$4.20; hours worked 44; married; 3 dependents

Regular earnings	\$ <u>168.00</u>	Fed.	<u>14.00</u>	Check is:	<u>167.34</u>
Overtime earnings	\$ <u>23.20</u>	S.S.	<u>11.84</u>		
Gross earnings	\$ <u>193.20</u>				

Problem 5

George Carter: regular rate \$3.75; hours worked 48; bachelor, 0 dependents

Regular earnings	\$ <u>150.00</u>	Fed.	<u>31.00</u>	Check is:	<u>152.05</u>
Overtime earnings	\$ <u>45.00</u>	S.S.	<u>11.95</u>		
Gross earnings	\$ <u>195.00</u>				

Problem 6

Victor Delagdo: regular rate, \$3.75; hours worked, 46; married; 5 dependents

Regular earnings	\$ <u>150.00</u>	Fed.	<u>6.40</u>	Check is:	<u>166.09</u>
Overtime earnings	\$ <u>33.75</u>	S.S.	<u>11.26</u>		
Gross earnings	\$ <u>183.75</u>				

Problem 7

Mary Hodes: salary \$230.00 per week; hours worked 45; married; 4 dependents. Figure overtime for a salaried person by arriving at an hourly rate based on a 40 hour week.

Regular earnings	\$ <u>230.00</u>	Fed.	<u>24.90</u>	Check is:	<u>231.49</u>
Overtime earnings	\$ <u>43.13</u>	S.S.	<u>16.74</u>		
Gross earnings	\$ <u>273.13</u>				

Problem 8

Luisa Ocasio: salary \$325.00 per week; hours worked 45; married; 4 dependents

Regular earnings	\$ <u>325.00</u>	Fed.	<u>48.30</u>	Check is:	<u>314.02</u>
Overtime earnings	\$ <u>60.98</u>	S.S.	<u>23.66</u>		
Gross earnings	\$ <u>385.98</u>				

Problem 9

Carl Fisher sold \$3,900 worth of goods; he is paid a commission of 6 percent on all sales; married; 2 dependents

Total sales	\$ <u>3,900.00</u>	Fed.	<u>24.60</u>	Check is:	<u>195.06</u>
Commission rate	\$ <u>.06</u>	S.S.	<u>14.34</u>		
Gross earnings	\$ <u>234.00</u>				

Problem 10

Nancy Clansen receives a commission of 5 percent on all sales that she makes. This week she sold \$4,200 worth of goods; married; 2 dependents

Total sales	\$ <u>4,200.00</u>	Fed.	<u>21.00</u>	Check is:	<u>176.13</u>
Commission rate	\$ <u>.05</u>	S.S.	<u>12.87</u>		
Gross earnings	\$ <u>210.00</u>				

Problem 11

Harold Youngman sold \$5,400 worth of goods on which he receives a commission of 6 percent; married: 4 dependents

Total sales	\$ <u>5,400.00</u>	Fed.	<u>35.10</u>	Check is:	<u>269.04</u>
Commission rate	\$ <u>.06</u>	S.S.	<u>19.86</u>		
Gross earnings	\$ <u>324.00</u>				

Problem 12

Sandra Rust has a photographic service. She receives a 6 percent commission on her regular sales and a 12 percent commission on a newly introduced special photo service. This week her regular sales amounted to \$2,000; special sales totaled \$825; single; 1 dependent

Regular sales	\$ <u>2,000.00</u>	Fed.	<u>31.20</u>	Check is:	<u>174.38</u>
Regular commission	\$ <u>.06</u>	S.S.	<u>13.42</u>		
	\$ <u>120.00</u>	(subtotal)			
Special sales	\$ <u>825.00</u>				
Special commission	\$ <u>.12</u>				
	\$ <u>99.00</u>	(subtotal)			
Gross earnings (total)	\$ <u>219.00</u>				

Assignment Sheet 2:

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date Current Ck.No. 1
 Pay to the order of Benjamin Holmes Amount 146.20
One hundred forty six and 20/100 Dollars

Treasurer _____

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
42	3.45	165.55	9.20	10.15	146.20

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date Current Ck.No. 2
 Pay to the order of Ronald Martin Amount 149.15
One hundred forty nine and 15/100 Dollars

Treasurer _____

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
44	3.40	165.60	6.30	10.15	149.15

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date Current Ck.No. 3
 Pay to the order of Edward Riggan Amount 153.03
One hundred fifty three and 03/100 Dollars

Treasurer _____

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
43	3.85	171.33	7.80	10.50	153.03

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date Current Ck.No. 4
 Pay to the order of Alan Barnett Amount 167.36
One hundred sixty seven and 36/100 Dollars

Treasurer _____

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
44	4.20	193.20	14.00	11.84	167.36

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date Current Ck.No. 5
 Pay to the order of George Carter Amount 152.05
One hundred fifty two and 05/100 Dollars

Treasurer _____

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
48	3.75	195.00	31.00	11.95	152.05

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date Current Ck.No. 6
 Pay to the order of Victor Delgado Amount 166.09
One hundred sixty six and 09/100 Dollars

Treasurer

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
46	3.75	183.75	6.40	11.26	166.09

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date Current Ck.No. 7
 Pay to the order of Mary Hodges Amount 231.49
Two hundred thirty one and 49/100 Dollars

Treasurer

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
45	230/wk	273.13	24.90	16.74	231.49

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date Current Ck.No. 8
 Pay to the order of Luisa Ocasio Amount 314.02
Three hundred fourteen and 02/100 Dollars

Treasurer

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
45	325/wk	385.98	48.30	23.66	314.02

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date Current Ck.No. 9
 Pay to the order of Carl Fisher Amount 195.06
One hundred ninety five and 06/100 Dollars

Treasurer

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
	6%	234.00	24.60	14.34	195.06

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date Current Ck.No. 10
 Pay to the order of Nancy Claassen Amount 176.13
One hundred seventy six and 13/100 Dollars

Treasurer

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
	5%	210.00	21.00	12.87	176.13

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701

Date Current Ck. No. 11

Pay to the order of Harold Youngman Amount \$269⁰⁴

Two hundred sixty nine and 04/100 Dollars

Treasurer

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
	6%	\$324 ⁰⁰	\$35.10	\$19.86	\$269 ⁰⁴

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701

Date Current Ck. No. 12

Pay to the order of Sandra Rust Amount \$174.38

One hundred seventy four and 38/100 Dollars

Treasurer

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
	Reg. 6% Special 14%	\$19.00	\$1.20	\$13.42	\$174.38

Payroll Sheet

Department U Payum Company

PAY PERIOD: Beginning May 1 19 xx Ending May 7 19 xx

Date of Pay May 7 19 xx

Name (Show Social Security Acct. No. in space above name)		Gross Pay			Tax Deductions			Net Pay	Total Other Deductions	PAID
		Hours		Extension	Total	Soc. Sec.	Inc. Tax	Total		
489-62-9543	Reg.	34	4.50	153.00	200.25	12.28	15.80	28.08	172.17	172.17
Joan Carroll (3)	O.T.	7	6.75	47.25						
329-61-8532	Reg.	40	6.50	260.00	299.00	18.33	28.80	47.13	251.87	236.62
Mike Duncan (4)	O.T.	4	9.75	39.00						
500-68-9754	Reg.	36	4.00	144.00	204.00	12.51	29.10	41.61	162.39	162.39
Mary Joering (1)	O.T.	10	6.00	60.00						
534-43-8756	Reg.	25	4.80	120.00	120.00	7.36	—	7.36	112.64	112.64
Alice Kessel (4)	O.T.	—	7.20	—						
439-21-6870	Reg.	36	6.80	244.80	306.00	18.76	60.80	79.56	226.44	221.44
Edith Lowes (0)	O.T.	6	10.20	61.20						
390-52-9876	Reg.	33	3.20	105.60	134.40	8.24	7.20	15.44	118.96	118.96
Bertha Maier (2)	O.T.	6	4.80	28.80						
498-68-4213	Reg.	40	3.50	140.00	182.00	11.16	28.90	40.06	141.94	141.94
Gerald Norman (0)	O.T.	8	5.25	42.00						
685-95-3856	Reg.	37	6.00	222.00	312.00	19.13	37.00	56.13	255.87	255.87
Arthur Orlander (3)	O.T.	10	9.00	90.00						
534-64-0921	Reg.	34	4.60	156.40	197.80	12.13	17.40	29.53	168.27	168.27
Janet Sauer (2)	O.T.	6	6.90	41.40						
643-43-0123	Reg.	29	5.30	153.70	201.40	12.35	12.30	24.65	176.75	176.75
Mildred Turner (4)	O.T.	6	7.95	47.70						
	Reg.									
	O.T.									
	Reg.									
	O.T.									
Totals	O.T.				2,156.85	182.25	237.30	369.55	1,487.30	1,767.05

Reg.-Regular
O.T.-Overtime

Assignment Sheet 3:

Assignment Sheet 3:

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date May 7, 19xx Ck. No. 1
 Pay to the order of Joan Carroll Amount 172.17
One hundred seventy-two and 17/100 Dollars

Treasurer _____

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
41	4.50	200.25	15.80	12.28	172.17

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date May 7, 19xx Ck. No. 2
 Pay to the order of Mike Duncan Amount 236.62
Two hundred thirty-six and 62/100 Dollars

Treasurer _____

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
44	6.50	299.00	28.80	18.33	236.62

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date May 7, 19xx Ck. No. 3
 Pay to the order of Mary Joering Amount 162.39
One hundred sixty-two and 39/100 Dollars

Treasurer _____

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
46	4.00	204.00	29.10	12.51	162.39

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date May 7, 19xx Ck. No. 4
 Pay to the order of Oliver Kessel Amount 112.64
One hundred twelve and 64/100 Dollars

Treasurer _____

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
35	4.80	120.00	-0-	7.36	112.64

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date _____ Ck. No. 5
 Pay to the order of Edith Lowe Amount 221.44
Two hundred twenty-one and 44/100 Dollars

Treasurer _____

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
42	6.80	306.00	60.80	18.76	221.44

Assignment Sheet 3 Answers:

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date May 7, 19xx Ck. No. 6
 Pay to the order of Bertha Maier Amount 118.96
One hundred eighteen and 96/100 Dollars

Treasurer

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
39	3.20	134.40	7.20	8.24	118.96

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date May 7, 19xx Ck. No. 7
 Pay to the order of Gerald Harmon Amount 141.94
One hundred forty-one and 94/100 Dollars

Treasurer

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
48	3.50	182.00	28.90	11.16	141.94

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date May 7, 19xx Ck. No. 8
 Pay to the order of Arthur Orlander Amount 255.87
Two hundred fifty-five and 87/100 Dollars

Treasurer

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
47	6.00	312.00	37.00	19.13	255.87

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date May 7, 19xx Ck. No. 9
 Pay to the order of Janet Sawyer Amount 168.27
One hundred sixty-eight and 27/100 Dollars

Treasurer

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
40	4.60	197.80	17.40	12.13	168.27

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date May 7, 19xx Ck. No. 10
 Pay to the order of Mildred Turner Amount 176.75
One hundred seventy-six and 75/100 Dollars

Treasurer

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
35	5.30	201.40	12.30	12.35	176.75

Payroll Sheet

Department U Payum Company

PAY PERIOD: Beginning May 8 19 xx Ending May 14 19 xx

Date of Pay May 14 19 xx

Name (Show Social Security Acct. No. in space above name)		Gross Pay			Tax Deductions			Net Pay	Total Other Deductions	PAID
		Hours		Extension	Total	Soc. Sec.	Inc. Tax	Total		
<u>489-62-8543</u>	Reg.	36	4.50	162.00	229.50	14.07	19.40	33.47	196.03	196.03
<u>Joan Carroll</u> (3)	O.T.	10	6.75	67.50						
<u>329-61-8532</u>	Reg.	40	6.50	260.00	328.25	20.12	35.10	55.22	273.03	15.25 257.78
<u>Mike Duncan</u> (4)	O.T.	7	9.75	68.25						
<u>500-68-9754</u>	Reg.	32	4.00	128.00	146.00	8.95	17.10	26.05	119.95	119.95
<u>Mary Joering</u> (1)	O.T.	3	6.00	18.00						
<u>534-43-8756</u>	Reg.	28	4.80	134.40	177.60	10.89	7.80	18.69	158.91	158.91
<u>Alice Kessei</u> (4)	O.T.	6	7.20	43.20						
<u>439-21-6870</u>	Reg.	38	6.80	258.40	309.40	18.97	60.80	79.77	229.63	5.00 224.63
<u>Edith Lowe</u> (0)	O.T.	5	10.20	51.00						
<u>390-52-9876</u>	Reg.	40	3.20	128.00	166.40	10.20	12.10	22.30	144.10	144.10
<u>Bertha Maier</u> (2)	O.T.	8	4.80	38.40						
<u>498-68-4213</u>	Reg.	34	3.50	119.00	187.25	11.48	28.90	40.38	146.87	146.87
<u>Gerald Norman</u> (0)	O.T.	13	5.25	68.25						
<u>685-95-3856</u>	Reg.	30	6.00	180.00	234.00	14.34	21.20	35.54	198.46	198.46
<u>Arthur Orlander</u> (3)	O.T.	6	9.00	54.00						
<u>534-64-0921</u>	Reg.	28	4.60	128.80	225.40	13.82	22.80	36.62	188.78	188.78
<u>Janet Sauer</u> (2)	O.T.	14	6.90	96.60						
<u>643-43-0123</u>	Reg.	40	5.30	212.00	243.80	14.94	19.50	34.44	209.36	209.36
<u>Mildred Turner</u> (4)	O.T.	4	7.95	31.80						
	Reg.									
	O.T.									
	Reg.									
	O.T.									
511	Totals				2247.60	137.78	214.70	352.48	1863.12	20.25 1844.87

Reg.-Regular
O.T.-Overtime

Assignment Sheet 4:

Unit VIII - Numerical Clerical Records
Lesson 8 - Payroll

POSTTEST 1

Directions: Figure the payroll for the week of May 21 using the payroll form. Use the personnel records from Assignment Sheet 3. Write payroll checks.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Joan C.	8	8	8	8	8	
Mike D.	7	10	8	8	8	7
Mary J.	8	8	9	9	8	8
Alice K.	10	8	4	6	8	
Edith L.	8	8	7	7	8	10
Bertha M.	7	6	9	8	8	8
Gerald N.	8	8	8	8	8	3
Arthur O.	8	8	10	7	7	8
Janet S.	5	8	6	8	8	5
Mildred T.	8	8	5	8	0	8

Unit VIII - Numerical Clerical Records
Lesson 8 - Payroll

POSTTEST 2

Directions: Prepare a payroll record, figure gross pay, federal withholding tax, FICA (Social Security) tax, and net pay for each employee. Total the payroll record.

Information for Payroll Summary: Company Name is Barbol, Inc., date is for the week ended Friday of last week.

Employee 1:	Pay rate \$5 per hour, 40 regular hours, 3 overtime hours, 4 dependents
Employee 2:	Pay rate \$4 per hour, 38 regular hours, 4 overtime hours, 0 dependents
Employee 3:	Pay rate \$6 per hour, 40 regular hours, 3 overtime hours, 3 dependents
Employee 4:	Pay rate \$5.50 per hour, 24 regular hours, 8 overtime hours, 2 dependents
Employee 5:	Pay rate \$3.90 per hour, 40 regular hours, 4 overtime hours, 3 dependents
Employee 6:	Pay rate \$5.50 per hour, 40 regular hours, 1 overtime hour, 0 dependents
Employee 7:	Pay rate \$4 per hour, 40 regular hours, 8 overtime hour, 1 dependents
Employee 8:	Pay rate \$7 per hour, 40 regular hours, 1 overtime hour, 3 dependents

Payroll Sheet

Department U Payum Company

PAY PERIOD: Beginning May 15 19 xx Ending May 21 19 xx

Date of Pay May 21 19 xx

Name (Show Social Security Acct. No. in space above name)		Gross Pay			Tax Deductions			Net	Total	PAID
		Hours		Extension	Total	Soc. Sec.	Inc. Tax	Total	Pay	
489-62-8543	Reg.	40	4.50	180.00	180.00	11.03	12.20	23.23	156.77	156.77
Joan Carroll (3)	O.T.	-	6.75	-						
329-61-8532	Reg.	39	6.50	253.50	341.25	20.92	39.30	60.22	281.03	265.78
Mike Duncan (4)	O.T.	9	9.75	87.75						
500-68-9754	Reg.	40	4.00	160.00	220.00	13.49	33.80	47.29	172.71	172.71
Mary Joering (1)	O.T.	10	6.00	60.00						
534-43-8756	Reg.	34	4.80	163.20	177.60	10.89	7.80	18.69	158.91	158.91
Alice Kessel (4)	O.T.	2	7.20	14.40						
439-21-6870	Reg.	38	6.80	258.40	360.40	22.09	80.20	102.29	258.11	253.11
Edith Low (0)	O.T.	10	10.20	102.00						
390-52-9876	Reg.	37	3.20	118.40	161.60	9.91	12.10	22.01	139.59	139.59
Bertha Maier (2)	O.T.	9	4.80	43.20						
498-68-4213	Reg.	40	3.50	140.00	155.75	9.55	22.60	32.15	123.60	123.60
Gerald Norman (0)	O.T.	3	5.25	15.75						
685-95-3856	Reg.	38	6.00	228.00	318.00	19.49	37.00	56.49	261.51	261.51
Arthur Orlander (3)	O.T.	10	9.00	90.00						
534-64-0921	Reg.	35	4.60	161.00	195.50	11.98	17.40	29.38	166.12	166.12
Janet Sauer (2)	O.T.	5	6.90	34.50						
643-43-0123	Reg.	29	5.30	153.70	217.30	13.32	14.10	27.42	189.88	189.88
Mildred Turner (4)	O.T.	8	7.95	63.60						
	Reg.									
	O.T.									
	Reg.									
	O.T.									
Totals	O.T.				237.40	142.67	276.50	419.17	1908.23	1887.98

Reg. Regular
O.T. Overtime

POSTTEST 1 KEY

Unit VII - Numerical Clerical Records
Lesson 8 - Payroll

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date May 24, 19th Ck. No. 1
 Pay to the order of Joan Carroll Amount \$156.77
One hundred fifty-six and 77/100 Dollars

Treasurer

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
40	4.50	180.00	12.20	11.03	156.77

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date May 21, 19th Ck. No. 2
 Pay to the order of Mike Dumcan Amount \$265.78
Two hundred sixty-five and 78/100 Dollars

Treasurer

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
48	6.50	341.25	39.30	20.92	265.78

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date May 21, 19th Ck. No. 3
 Pay to the order of Mary Joering Amount \$172.71
One hundred seventy-two and 71/100 Dollars

Treasurer

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
50	4.00	220.00	33.80	13.49	172.71

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date May 24, 19th Ck. No. 4
 Pay to the order of Alice Kessel Amount \$158.91
One hundred fifty-eight and 91/100 Dollars

Treasurer

HRS. WORKED	PAY RATE	DEDUCTIONS:			NET PAY
		GROSS PAY	WITHHOLDING	FICA	
36	4.80	177.60	7.80	10.89	158.91

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date May 21, 19^{xx} Ck. No. 5
 Pay to the order of Edith Louvas Amount \$253.11
Two hundred fifty three and 11/100 Dollars

Treasurer _____

HRS. WORKED	PAY RATE	DEDUCTIONS:				NET PAY
		GROSS PAY	WITHHOLDING	FICA		
48	6.80	\$360.40	80.20	22.09	\$253.11	

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date May 21, 19^{xx} Ck. No. 8
 Pay to the order of Arthur Oxlander Amount \$261.51
Two hundred sixty one and 51/100 Dollars

Treasurer _____

HRS. WORKED	PAY RATE	DEDUCTIONS:				NET PAY
		GROSS PAY	WITHHOLDING	FICA		
48	6.00	\$318.00	37.00	19.49	\$261.51	

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date May 21, 19^{xx} Ck. No. 6
 Pay to the order of Bertha Maur Amount \$139.59
One hundred thirty nine and 59/100 Dollars

Treasurer _____

HRS. WORKED	PAY RATE	DEDUCTIONS:				NET PAY
		GROSS PAY	WITHHOLDING	FICA		
46	3.20	\$161.60	12.10	9.91	\$139.59	

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date May 21, 19^{xx} Ck. No. 9
 Pay to the order of Janet Sauer Amount \$166.12
One hundred sixty six and 12/100 Dollars

Treasurer _____

HRS. WORKED	PAY RATE	DEDUCTIONS:				NET PAY
		GROSS PAY	WITHHOLDING	FICA		
40	4.60	\$195.50	17.40	11.98	\$166.12	

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date May 21, 19^{xx} Ck. No. 7
 Pay to the order of Gerald Norman Amount \$123.60
One hundred twenty three and 60/100 Dollars

Treasurer _____

HRS. WORKED	PAY RATE	DEDUCTIONS:				NET PAY
		GROSS PAY	WITHHOLDING	FICA		
43	3.50	\$155.75	22.60	9.55	\$123.60	

U PAYUM COMPANY 301 North Clark Cape Girardeau, MO 63701
 Date May 21, 19^{xx} Ck. No. 10
 Pay to the order of Mildred Turner Amount \$189.88
One hundred eighty nine and 88/100 Dollars

Treasurer _____

HRS. WORKED	PAY RATE	DEDUCTIONS:				NET PAY
		GROSS PAY	WITHHOLDING	FICA		
47	5.30	\$217.30	14.10	13.32	\$189.88	

Payroll Sheet

Department Barbol, Inc.

PAY PERIOD: Beginning 19 Ending 19

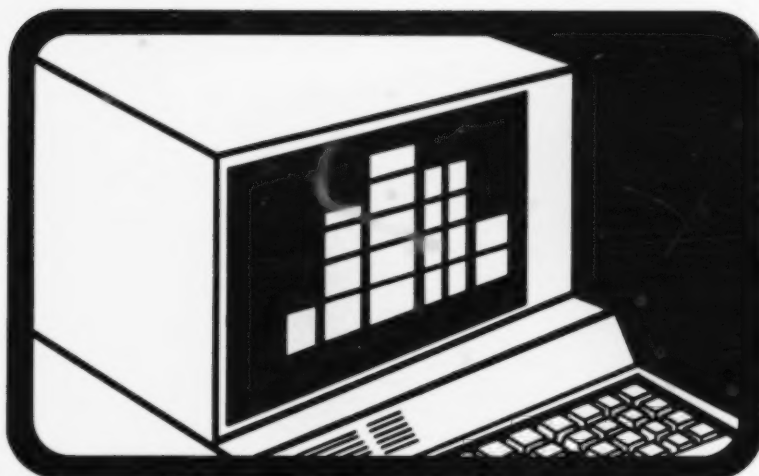
Date of Pay 19

Name (Show Social Security Acct. No. in space above name)			Gross Pay			Tax Deductions			Net Pay	Total Other Deductions	PAID
			Hours		Extension	Total	Soc. Sec.	Inc. Tax	Total		
<u>Employee 1</u>	(4)	Reg.	40	5.00	200.00	222.50	13.64	15.90	29.54	192.96	192.96
		O.T.	3	7.50	22.50						
<u>Employee 2</u>	(0)	Reg.	38	4.00	152.00	176.00	10.79	26.80	37.59	138.41	138.41
		O.T.	4	6.00	24.00						
<u>Employee 3</u>	(3)	Reg.	40	6.00	240.00	267.00	16.37	26.60	42.97	224.03	224.03
		O.T.	3	9.00	27.00						
<u>Employee 4</u>	(2)	Reg.	24	5.50	132.00	198.00	12.14	17.40	29.54	168.46	168.46
		O.T.	8	8.25	66.00						
<u>Employee 5</u>	(3)	Reg.	40	3.90	156.00	179.40	11.00	10.70	21.70	157.70	157.70
		O.T.	4	5.85	23.40						
<u>Employee 6</u>	(0)	Reg.	40	5.50	220.00	228.25	13.99	38.80	52.79	175.46	175.46
		O.T.	1	8.25	8.25						
<u>Employee 7</u>	(1)	Reg.	40	4.00	160.00	208.00	12.75	22.70	35.45	172.55	172.55
		O.T.	8	6.00	48.00						
<u>Employee 8</u>	(3)	Reg.	40	7.00	280.00	290.50	17.81	32.80	50.61	239.89	239.89
		O.T.	1	10.50	10.50						
		Reg.									
		O.T.									
		Reg.									
		O.T.									
		Reg.									
		O.T.									
Totals		Reg.				1,769.65	108.49	191.70	300.19	1,469.46	1,469.46
		O.T.									

Reg. Regular
O.T. Overtime

POSTTEST 2 KEY

Unit VIII - Numerical Clerical Records
Lesson 8 - Payroll



Processing Information

Unit IX - Information Processing

UNIT OBJECTIVES

Upon completion of this unit, the student will be able to effectively utilize software applications in solving problems which relate to information processing.

LESSON OBJECTIVES

1. Given 28 information processing terms and definitions, the student will be able to match terms with their definitions with 80 percent accuracy within 30 minutes.
2. Following class discussion, the student will be able to list and describe 3 components of a functional computer with 100 percent accuracy.
3. Upon completion of this unit, the student will be able to diagram and label the electronic information cycle with 90 percent accuracy within 30 minutes.
4. Given 13 word processing terms and definitions, the student will be able to match terms with their definitions with 90 percent accuracy within 25 minutes.
5. Given a word processing system, the student will describe 10 features needed for general office applications with 80 percent accuracy within 25 minutes.
6. Upon completion of this unit, the student will be able to list and describe 4 components of display, linear, and blind word processing equipment with 80 percent accuracy within 20 minutes.
7. Using a word processor, the student will be able to produce 3 mailable revisions of a document within 30 minutes.
8. Given appropriate hardware, electronic/filing software, and a list of 30 items, the student will be able to enter and print a correct list of requested items with 90 percent accuracy within 45 minutes.
9. Given an existing database structure and appropriate hardware, the student will enter data consisting of at least 30 pieces of inventory with 90 percent accuracy within 30 minutes.
10. Given an existing database and appropriate hardware, the student will access and extract 6 categories of data with 100 percent accuracy within 30 minutes.

11. Given an existing database, appropriate hardware, and 3 business applications, the student will extract and format data with 95 percent accuracy within 30 minutes.
12. Given appropriate hardware and software, the student will design with 80 percent accuracy within 90 minutes, a database consisting of at least 3 student organization membership lists.
13. Given a spreadsheet application, hardware, and appropriate software, the student will design a spreadsheet, enter the data, store, and print the results with 80 percent accuracy within 90 minutes.

COMPETENCIES

1. Identify and describe computer components
2. Describe the electronic information cycle
3. Describe components of display, linear, and blind word processing equipment
4. Compare and evaluate the features of word processing systems
5. Produce and revise a document on a word processing system
6. Enter and retrieve information with a computerized filing system
7. Modify or correct computerized records
8. Enter data into a data base
9. Access and extract data from a data base
10. Design a database
11. Design and use a spreadsheet

NOTES TO THE INSTRUCTOR

These learning materials are generic and must be adapted by instructor to the available hardware/software.

REFERENCES

I. Books and Pamphlets

- A. Allen, Warren W. and Klosster, Dale H. Automated Accounting for the Microcomputer. Cincinnati, OH: South-Western Publishing Company, 1982.
- B. Bergerud, Marly and Gonzalez, Jean, Word Processing Concepts and Careers. New York: John Wiley and Sons, 1984.
- C. Brooks, Lloyd. Consultation, Inc. Word Processing Practice & Applications. New York: Gregg Division/McGraw-Hill Book Company, 1983.
- D. Casady, Mona. Word/Information Processing Concepts. Cincinnati: South-Western Publishing Company, 1984.
- E. Casady, Mona. Word Processing Concepts. Cincinnati: South-Western Publishing Company, 1980.
- F. Connell, John, Fulton, Norma, and Kupsh, Joyce. The Electronic Office. Encino, CA: Glencoe Publishing Company, 1984.
- G. Forbes, Mary Jane. Word Processing Procedures for Today's Office. Bedford, MA: Digital Press, 1983.
- H. Guerrieri, Donald, Haber, Barry F., Hoyt, Dillion B., and Turner, Robert E. Accounting. Boston, MA: Houghton Mifflin Company, 1985.

- I. Kleinschrod, Walter, Kruk, Leonard B., and Turner, Hilda. Word/Information Processing: Administration & Office Automation. 2nd Edition. Indianapolis: Bobbs-Merrill Educational Publishing, 1983.
- J. Kruse, Benedict, Word Processing: Getting Started. Encino, CA: Glencoe Publishing Company, 1981.
- K. O'Brien, James A. Computers and Information Processing in Business. Homewood, IL: Richard D. Irwin, Inc., 1983.
- L. Popyk, Marilyn K. Word Processing: Essential Concepts. New York: Gregg Division/McGraw-Hill Book Company, 1983.
- M. Shelly, Gary B. and Cashman, Thomas J. Introduction to Computers and Data Processing. Brea, CA: Anaheim Publishing Company, 1980.
- N. Vittetoe, Jerry. Data Processing: Volume 1. Columbia, MO: Instructional Materials Laboratory, 1982.

II. Software*

- A. Appleworks. For: Apple IIc; IIe.

This is an integrated software program that combines the three most popular microcomputer applications: word processing, database, and spreadsheet. Information can be moved into and out of all three applications to create a document. Training diskettes with sample files already created are provided. Available from Apple Computer, Inc., 20525 Mariani Avenue, Cupertino, CA 95014.

- B. Applewriter II. For: Apple IIe; IIc (ProDOS).

This is an improved version of the powerful word processor, Applewriter. Two new features are a built-in communications utility that allows you to send a file directly from within the word processor and the capability to hook your keyboard and printer together directly to serve as a typewriter. Available from Apple Computer Inc., 20525 Mariani Avenue, Cupertino, CA 95014.

*Software descriptions have been taken directly from the publishers and/or vendors.

- C. Basic Business Graphics, New York: Softtext Publishing Corporation. For: IBM PC; XT; AT; PC portable.

This is a complete easy-to-read package covering all aspects of basic business presentation and graphical analysis. Graphical techniques include bar charts, pie charts, line graphs, scatter plots and various combinations of these graphs. Available from Softtext Publishing Corporation, 17 East 45 Street, Suite 605, New York, NY 10017.

- D. Business Address Manager. Business Applications, New York: McGraw-Hill Book Company, 1984. For: IBM PC; TRS-80 II; Apple II; II+; IIe.

One of five programs in a series, this program gives users the help they need in areas often vital to success. Each program saves time by handling quickly--and accurately--what takes hours or days manually. Available from McGraw-Hill Book Company, Computer Marketing Services, S-1, Princeton-Hightstown Road, Hightstown, NJ 08520.

- E. Business Applications. Computer Modules for Business Education, 1983. For: Apple II; IIe.

One of a series of five, this module shows students typical computer applications in business and how computers will affect their future job descriptions. Available from Career Aids, Incorporated, 202417 Nordhoff Street, Department K65, Chatsworth, CA 91311.

- F. Business Education Package No. 3. For: Apple IIe or II+.

This program allows users to create a general ledger file, enter transactions, adjustments, and corrections prior to creating a balance sheet and income statement. Users need a knowledge of general ledger accounting. Available from Micro Learningware, P.O. Box 2134, North Mankato, MN 56001.

- G. Computer Literacy. For: Apple IIe; II+.

This diskette-text package provides a novice student with an introduction to the Apple IIe or II+ computer. Students learn the parts of the computer, uses and care. They then learn how to create simple programs in BASIC, how to save them on diskettes, and how to recall them. Available from McGraw-Hill, 13955 Manchester Road, Manchester, MO 63011.

H. Correctstar. For: IBM PC.

This is a dictionary program which checks for spelling errors in documents created by Wordstar. Contains a 65,000 entry dictionary and a personal dictionary with space for 1500 words. Available from MicroSoftware Solutions, Division of Career Aids, Inc., 20417 Nordhoff Street, Dept. A., Chatsworth, CA 91311.

I. DB MASTER. For: Apple II; IIe.

This program is a database management program allowing you to enter, correct, change or edit files such as client lists, accounts receivable, vendors, government forms and filing dates, etc. It also includes a "Report Generator" which will create reports containing only the information you select. Available from MicroSoftware Solutions, Division of Career Aids, Inc., 8950 Lurline Avenue, Department B 3 4, Chatsworth, CA 91311.

J. dBASE III. For: IBM PC.

This is a highly flexible programmable database which allows you to create files in format for simple applications (calendar events, phone lists, etc.) or complex needs (general ledger, payroll, etc.). Reports can be generated from one or more files and entire files can be moved, copied or otherwise changed. Available from MicroSoftware Solutions, Division of Career Aids, Inc., 20417 Nordhoff Street, Dept. A., Chatsworth, CA 91311.

K. Data Entry Activities for the Microcomputer, Cincinnati: South-Western Publishing Company. For: Apple II+.

The objective of this software package is the development of students' dexterity and accuracy in keyboarding characters and numerals. To achieve this, students work through 10 business activities using the diskette. As they work, students receive feedback relating to the percentage of accuracy, types of errors made, and the words per minute of the information they record. Available from South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227.

L. DisplayWrite 3. For: IBM PC.

The DisplayWrite 3 program allows you to use your IBM Personal Computer as a powerful word processor. You can type letters and reports, store and print them, and later edit or reformat them. You can type and print repetitive form letters, check the math of financial reports, or verify the spelling of your documents. The program is capable of advanced word processing applications including text tasks, productivity tasks, column and math tasks, and merge tasks. Available from authorized IBM Personal Computer Dealers and IBM Product Centers.

- M. Educational Versions of ATI Training Power, Cincinnati: South-Western Publishing Company. For: Apple IIe; IIc; IBM PC; XT.

South-Western Publishing Company and American Training International, Inc. offer the following packages designed to teach students how to use best-selling software programs. Each package contains a self-prompting diskette that simulates the actual software on the screen of the microcomputer. A reference manual enables the student to find simple instructions quickly. Packages are available for IBM PC Dual-side, IBM PC Single-side, Apple IIe and IIc in such popular software as VisiCalc, Lotus 1-2-3 (IBM PC only), dBase II Volumes 1 and 2, WordStar Volumes 1 (MenuPower) and 2 (Command Power), Multiplan (IBM PC Dual-side and Apple IIe and IIc only), EasyWriter II (IBM PC Dual-side and Apple IIe and IIc only), SuperCalc (IBM PC Dual-side and Apple IIe and IIc only), and various introductory programs presenting hardware and languages. Available from South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227.

- N. The Electronic Spreadsheet--Revised Edition, St. Paul: Minnesota Educational Computing Consortium, 1983. For: Apple II.

This program provides a tutorial introducing VisiCalc. Problem solving in consumer economics, recordkeeping, data entry, bookkeeping and accounting, office machines, office procedures, and business management. Templates needed for some of the problems are included. Available from MECC Distribution Center, 3490 Lexington Avenue North, St. Paul, MN 55112.

- O. Gales and Fleischer, The Micro-Editor, Cincinnati: South-Western Publishing Company, 1984. For: TRS-80 III, IV; Apple II+; IIe.

The student is given step-by-step instructions on how to edit lines and letters. An 80-column card is required. Available from South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227.

- P. Graham, Working Your Way Through WordStar, Cincinnati: South-Western Publishing Company.

This text-workbook presents the WordStar word processing program to students in a nontechnical, step-by-step style. Each lesson in the text contains specific objectives, command instructions, recaps of commands, written and computer exercises. Available from South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227.

- Q. GraphWorks. For: Apple IIe; IIc.

This package offers graphic capabilities for AppleWorks users. GraphWorks is a standalone program which directly utilizes AppleWorks spreadsheet data files and plots them as four graph types: bar, stacked-bar, line, and pie. Available from PBI Software, 1155B-H Chess Drive, Foster City, CA 94404.

- R. IBM Assistant Series. For: IBM PC family.

This is a series of five packages which work together or separately. Filing Assistant is a database program allowing organization, storage and retrieval of files. Writing Assistant is a word processor that shows you on the screen what your words will look like on paper and corrects misspelled words. Graphing Assistant accepts information directly from the keyboard or from Filing Assistant and displays data as a pie chart, bar chart or line chart. Planning Assistant is a spreadsheet which uses plain English commands. Reporting Assistant creates customized reports using Filing Assistant data. Available from IBM Product Centers or authorized IBM Personal Computer dealers.

- S. Lotus 1-2-3. For: IBM PC; XT.

This is an integrated software package providing spreadsheet capability for building complex reports, graphics display for displaying the results of your report as a line graph, bar chart, pie chart or combination, and database facility for recording and filing business data. Available from MicroSoftware Solutions, Division of Career Aids, Inc., 8950 Lurline Avenue, Department B 3 4, Chatsworth, CA 91311.

- T. Magicalc. For: Apple II line; IBM PC.

This spreadsheet program is based on the popular VisiCalc. It is an inexpensive basic spreadsheet program suitable for creating small, uncomplicated spreadsheets. Available from Artsci Inc., 5547 Satsuma Avenue, North Hollywood, CA 91601.

- U. Matthews, et.al., Palmetto Insurance Company--A Computerized Office Job Simulation, Cincinnati: South-Western Publishing Company, 1984. For: TRS-80 III; Apple II+.

Handwritten drafts, typed drafts, form letter requests, and simulated machine dictation are used to prepare memos, letters, reports, form letters, and tables on the microcomputer. Available from South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227.

V. Megaworks. For: Apple IIe; IIc.

This is a mailmerge and spelling correction program designed exclusively for AppleWorks. Mailmerge enables you to print hundreds of form letters with a single master letter and list. Any amount of information can easily be merged from a list into a letter. Available from MicroSoftware Solutions, Division of Career Aids, Inc., 20417 Nordhoff Street, Dept. A., Chatsworth, CA 91311.

W. Multiplan. For: Apple IIe; II+; IBM PC.

This is a software package for budgeting, analyzing, and projecting. The accompanying manual serves as a tutorial and reference guide. Available from Microsoft, 10700 Northup Way, Bellevue, WA 98004.

X. Olinzock and Santos, Microcomputer Simulations in Business, Cincinnati: South-Western Publishing Company. For: TRS-80 III and IV; Network 3; Apple II+; IIe; IIc; IBM PC.

This simulation prepares students to use microcomputers in solving business problems and completing a wide range of office tasks. They will develop and maintain a mailing list for a mail-order firm, compute yearly cost and income projections for a service firm, prepare expense report comparisons with graphs for a wholesale distributor, and prepare and analyze financial statements for a retail store. An electronic dictionary is included to aid students in learning business and data processing terminology. Available from South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227.

Y. PFS File. For: Apple IIe; II+; IBM PC.

This program permits the storage and retrieval of business information. The information is stored in forms, structured as the user desires. Data is organized and stored for easy access. Available from Software Publishing Co., 1901 Landings Drive, Mt. View, CA 94043.

Z. PFS Graph. For: IBM PC; Apple II; IIe.

This program integrates with other PFS programs. You can select the type of chart or graph you want (pie, bar, or line) and enter the information (new information or from PFS File or VisiCalc). Available from MicroSoftware Solutions, Division of Career Aids, Inc., 20417 Nordhoff Street, Dept. A., Chatsworth, CA 91311.

AA. PFS Report. For: IBM PC; Apple II; IIe.

This program integrates with other PFS programs. Report will let you generate reports in the form of tables from information in files created with PFS File. Available from MicroSoftware Solutions, Division of Career Aids, Inc., 20417 Nordhoff Street, Dept. A., Chatsworth, CA 91311.

BB. PFS Write Version C. For: IBM PC; XT; AT.

PFS Write was designed to be easy to use, producing written documents quickly. Version C combines an excellent word processor with PFS Proof, an on-line in-context spelling checker. Available from Software Publishing Corp., 1901 Landings Drive, Mountain View, CA 94043

CC. Quickfile. For: Apple IIe.

This is an easy-to-use filing program for an inexpensive price. The program allows for 26 files per data disk, approximately 140 records per file, 15 maximum categories per file. Quickfile interacts with Applewriter IIe in producing form letters. Available from Apple Computer, Inc., 20525 Mariani Avenue, Cupertino, CA 95014.

DD. Supercalc 2. For: IBM PC; Apple II; IIe.

This program contains all standard spreadsheet operations as well as the simultaneous display of two portions of the spreadsheet, a one-key command for repeating data, selectable cell widths for display, instant recalculation whenever an entry is changed, and others. Available from MicroSoftware Solutions, Division of Career Aids, Inc., 8950 Lurline Avenue, Department B 3 4, Chatsworth, CA 91311.

EE. Superscriptsit. For: TRS-80 III and IV.

This is a word processing program with standard features. Support materials include audio cassettes, training manual, reference manual, and reference card. This program can be learned with ease and has a relatively low cost. Available from Radio Shack.

FF. Uses of a Database. Computer Modules for Business Education, 1983. For: Apple II, IIe.

One of a series of five, this module shows students typical computer applications in business and how computers will affect their future job descriptions. Available from Career Aids, Incorporated, 202417 Nordhoff Street, Department K65, Chatsworth, CA 91311.

- GG. VanHuss and Atkinson, Microcomputer Office Practice, Tronics, Incorporated, Cincinnati: South-Western Publishing Co., 1985.
For: Apple II+; IIe; IIC; TRS-80 III and IV.

This program simulates a typist's duties for Tronics, Incorporated, a manufacturer and marketer of electronic products. It is designed to help students develop their basic office skills, especially typing, communication, and information handling. Available from South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227.

- HH. VisiCalc. For: Apple II; IIe.

An electronic worksheet (spreadsheet) allowing you to enter figures as you would on a ledger sheet. Change any number on the worksheet and the program recalculates all the numbers and displays new results. This allows you to see the impact of your decisions before you implement them and also allows automatic transfer of data from one worksheet to another. Available from MicroSoftware Solutions, Divisions of Career Aids, Inc., 8950 Lurline Avenue, Department B 3 4, Chatsworth, CA 91311.

- II. Watts and Clark, Introduction to Apple Writer Word Processing, Cincinnati: South-Western Publishing Company.

This text-workbook will teach students to write, edit, rewrite, file, and retrieve copy on Apple microcomputers. Students are introduced, step-by-step, to Apple Writer II commands--from the simple to the complex. Thirty lessons give the students written exercises as well as computer exercises. Available from South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227.

- JJ. The Word Handler. For: Apple II; IIe.

This program displays 66 columns of text so that documents can be viewed on the screen just as they will appear on the printed page. It allows direct-to-disk editing, simplicity of operation, clarity of display format (lower-case, underlining, superscript, bold, justification, tabs), as well as usual word processing features. Available from Silicon Valley Systems, Inc., 1625 El Camino Real #4, Belmont, CA 94002.

- KK. WordPerfect. For: IBM PC, PC AT, PC XT and compatibles.

A word processing program which includes page/documenting formatting functions, typing and editing functions, speller and thesaurus functions, four function math, and merge functions. Program includes file conversion utilities which allows interfacing with other software and phototypesetting equipment. Available from Satellite Software International, 288 West Center Street, Orem, UT 84057.

- LL. Word Processing Manager. Business Applications, New York: McGraw-Hill Book Company, 1984. For: IBM PC; TRS-80 III; Apple II; II+; IIe.

One of five programs in a series, this program provides time-saving office management application. Available from McGraw-Hill Book Company, Computer Marketing Services S-1, Princeton-Hightstown Road, Hightstown, NJ 08520.

- MM. WordStar. For: IBM PC; Apple II or IIe.

A word processing program which begins with simple commands and help instructions and progresses to special features which make it a highly professional system. Available from MicroSoftware Solutions, Division of Career Aids, Inc., 20417 Nordhoff Street, Dept. A., Chatsworth, CA 91311.

- NN. WordStar 2000. For: IBM PC; XT; AT.

There are two versions of WordStar 2000: the basic word processor and WordStar 2000 Plus, which includes telecommunications capabilities, a mailing list database, and an index and table of contents builder. The 2000 programs were designed to answer criticisms of the popular WordStar word processor; this version does seem easier to learn although it performs relatively slowly, requires heavy disk swapping, and does not convert old documents easily. Available from Micropro International, 33 San Pablo Avenue, San Rafael, CA 94903.

Unit IX - Information Processing
Lesson 1 - Information Processing: The Basics

LESSON OBJECTIVES

1. Given 28 information processing terms and definitions, the student will be able to match terms with their definitions with 80 percent accuracy within 30 minutes.
2. Following class discussion, the student will be able to list and describe three components of a functional computer with 100 percent accuracy within 5 minutes.
3. Upon completion of this unit, the student will be able to diagram and label the electronic information cycle with 90 percent accuracy within 30 minutes.

SUGGESTED ACTIVITIES

I. Instructor

- A. Prepare transparencies.
- B. Provide objectives, information sheets, and handout to students.
- C. Discuss information sheets.
- D. Administer and evaluate posttest.

II. Student

- A. Read and discuss objectives and information sheets.
- B. Complete posttest.

INSTRUCTIONAL MATERIALS

I. Objective Sheet

II. Information Sheets

III. Handout

- A. HO 1: Information Processing Vocabulary List

IV. Transparency Masters

- A. TM 1: What Makes a Computer System?
- B. TM 2: The "I" in I/O

- C. TM 3: Central Processing Unit
- D. TM 4: The "O" in I/O
- E. TM 5: Print: Solid Line or Dots?
- F. TM 6: Disk Storage
- G. TM 7: Floppy Disk
- H. TM 8: Computer Configurations: Standalone
- I. TM 9: Computer Configurations: Shared Resource
- J. TM 10: Computer Configurations: Shared Logic
- K. TM 11: Biting into a Problem
- L. TM 12: Systems Software
- M. TM 13: Development Software = Languages
- N. TM 14: Data--Information
- O. TM 15: Packaged Software vs. Custom Software
- P. TM 16: The Electronic Information Cycle
- Q. TM 17: The Traditional Information Cycle

V. Assignment Sheets and Answers

- A. AS 1: The Traditional Information Cycle
- B. AS 2: The Electronic Information Cycle
- C. AS 3: Learning the Vocabulary for Information Processing

VI. Posttest and Key

Unit IX - Information Processing
Lesson 1 - Information Processing: The Basics

INFORMATION SHEET

- I. Basic Terms and Definitions (See HO 1 for an expanded vocabulary list.)
 - A. **CPU**--the central processing unit in a computer which performs arithmetic, logical, and control functions
 - B. **Computer**--an electronic device that can perform arithmetic, logical, or word operations
 - C. **Computer Network**--two or more connected computers with the ability to exchange data
 - D. **Computer System**--an arrangement of interactive computer components
 - E. **Cursor**--an area of light on a display screen which indicates the current working position
 - F. **Data**--a representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, and processing by humans or automatic machines
 - G. **DataBase**--a collection of related data stored electronically that can be retrieved or manipulated by software (such as a customer list or a list of customers who have made purchases exceeding \$10,000 within the past 60 days)
 - H. **Data Processing**--the transformation of data through processing into information which can be used for decisionmaking
 - I. **Disk Drive**--a device that holds, spins, reads, or writes magnetic disks so that data can be input to or output from a computer
 - J. **Documentation**--(1) the instruction manual for hardware or software (2) the process of detailing a computer program so that others using the program are able to verify what was done
 - K. **Dot Matrix Printer**--an impact printing device that forms characters in a pattern of closely-spaced dots when wire hammers strike the paper to make the desired characters
 - L. **Floppy Disk**--a round, flat magnetic recording and storage medium (usually 5 1/4 inches or 8 inches in diameter) that resembles a flexible phonograph record and allows random access storage
 - M. **Hard Copy**--printed copy

- N. **Hardware**--the physical components of a computer system
- O. **Information Processing**--(1) the generation, distribution, and storage of information by a computer, including word and data processing as well as all business and scientific operations performed by a computer (2) a term encompassing an organization's total information-handling system including word and data processing, administrative support, micrographics, electronic mail, phototype, and any other activities involving communication systems and the handling of information
- P. **Input Device**--a piece of equipment used to enter text or data for computer processing
- Q. **Interface**--hardware or software which allows interaction between two computers or peripheral devices that cannot be directly hooked together to interact
- R. **Internal Memory**--memory that cannot be physically removed from hardware
- S. **I/O**--input/output device
- T. **Keyboard**--the input device in a computer system similar to a typewriter keyboard with additional specialized keys
- U. **Memory**--the computer storage area for data and instructions
- V. **Microcomputer**--the smallest type of computer, usually small enough to be placed on a desk or table
- W. **Operating System**--the most basic type of software that controls how a computer functions and which applications software it will run
- X. **Output Device**--a piece of hardware which displays or prints the information produced by a computer
- Y. **Printer**--a device which transfers computer information to hard copy
- Z. **Program**--an instruction sequence which directs computer operations to solve a defined problem
- AA. **Software**--the program which directs computer operations
- BB. **Word Processing**--
 - 1. In a standalone environment: The manipulation of alphanumeric characters in text to facilitate communication; a system for producing finished documents from input originated by authors

2. In a functional environment: A system of trained personnel, specific procedures, and automated equipment which facilitates manipulating letters and numbers efficiently and economically into written business communication documents

II. Computer Capabilities

- A. Arithmetic operations: + - * /
- B. Logical operations: = < >
- C. Input/output operations: receiving data to be processed or sending results of processing to the screen or printer

III. Computer Hardware--A functional computer requires a method for input and output as well as a processor. (TM 1)

- A. Input--converting data from human-readable form into machine-readable form (TM 2)
 1. CRT uses keyed strokes
 2. OCR converts hard copy print into machine-readable code through scanning the hard copy
- B. Processor
 1. CPU
 - a. Control unit
 - (1) The computer's hardware "traffic director"
 - (2) Controls I/O, operations of the arithmetic/logic unit, and transferring data to and from main computer storage
 - b. Arithmetic/logic unit--The working section of the computer where the circuitry actually performs the arithmetic or logic operations
 2. Main storage--measured in K; normally found in units of 8K (TM 3)
 - a. RAM--volatile; temporary
 - b. ROM
 - (1) Contains the fundamental system controls
 - (2) Permanent

- (3) Changeable only by chip replacement
- C. Output--converting data in machine-readable form into human-readable form (TM 4)
 - 1. Soft copy: VDT
 - a. Standard display = 24 lines 80 characters
 - b. Options:
 - (1) 132 characters per line
 - (2) Full-page display
 - (3) Graphics capability
 - (4) Color
 - 2. Hard copy: Printers--classification may be made in a variety of ways
 - a. Method of print (TM 5)
 - (1) Impact--the printed image is a result of the printing mechanism impacting the ribbon and paper
 - (a) Solid character--formed by continuous lines (letter-quality)
 - (b) Dot matrix--formed by pattern of dots
 - (2) Non-impact--the printed image is formed through a chemical or electrical process
 - (a) Thermal and electrostatic printers require specially treated papers for image formation
 - (b) Ink jet or xeroxgraphic printers use plain paper
 - b. Speed of print
 - (1) Character--one character is printed at a time
 - (2) Line--one line of print is formed at a time
 - 3. COM--characters may be 2-4 percent of the size of comparable printed characters
 - a. Output speeds possible up to 30,000 lines per minute

- b. Lower cost in data recording
- c. Lower storage cost--micromedia can require only 1 percent of storage space for comparable printed data

D. Auxiliary storage

- 1. Disk--random access; data stored in tracks and sectors (TM 6)
 - a. Floppy--typically 5 1/4" or 8" (TM 7)
 - b. Hard
 - (1) A number of platters with a central common spindle which may be sealed as a unit and/or removable in large computer systems but housed within the hardware of a small system
 - (2) Data stored in track/sector organization on each surface
- 2. Tape--sequential access
- 3. Cards
 - a. Sequential access
 - b. Individual records are easily transportable and easily understood by consumers
 - c. Encourages usage in consumer applications (i.e. utility billings where the card is returned with payment)

IV. Computer Configurations

- A. Standalone (TM 8)
- B. Shared Resource (TM 9)
- C. Shared Logic (TM 10)

V. Software (TM 11, TM 12)

- A. System--connects the hardware and software by directing the control unit
 - 1. The most basic of all software
 - 2. Controls how input is received, output is sent, and processing is accomplished

3. Organizes and maintains the files on the storage media
 4. Maintains system usage records
 5. Controls system access
 6. Provides methods of targeting problems to hardware or software
- B. Development software (TM 13)
1. Languages
 2. Must be compatible with the operating system
- C. Applications--must be compatible with operating system and available development software (TM 14)
1. Word processing
 - a. The most popular software
 - b. Available with a wide range of features
 2. Accounting--the first broad business application of data processing
 - a. Single function--a standalone software package for a single purpose such as payroll or inventory
 - b. Interactive
 - (1) A group of software packages in which the generated data from one program is transferred to another program for further processing.
 - (2) Examples
 - (a) The total payroll expense as well as tax liabilities is written to the general ledger.
 - (b) Total invoiced sales are transferred to General Ledger while individual sales on account are recorded in Accounts Receivable.
 3. Database management--allows a user or users to access a collection of data in a variety of ways and generate/manipulate that data according to individual application
 4. Spreadsheet/worksheet
 - a. An electronic "scratchpad"

- b. Allows the user to design a report or series of calculations in which initial data is entered and the computer calculates automatically according to user instruction. (A vendor sells 100 items and will lower the price of each by 5 percent. She/he could enter each item number and price; the system could then calculate the amount of reduction per item and final selling price and then print a report showing the results.)
- 5. Custom--written by a programmer for a specific user's application (TM 15)
- 6. Administrative applications--capabilities typically in electronic workstations which may also be optional software packages for other systems; i.e., electronic message systems, notebook, calendar systems, etc.
- D. Communications--when combined with the necessary hardware and interfaces, communications software provides a variety of options to system users:
 - 1. The input point may be remote from the processor. A credit sale in a Kansas City store will be completed only after the credit is checked online with the corporate computer in New York and the appropriate change in credit available is noted.
 - 2. The printer may be remote from the input point or processor. The main computer in New York generates the quarterly sales data and then prints the report in each regional office.
 - 3. Written communications can go from sender to remote receiver via soft copy.

VI. The Changing Information Cycle

A. Traditional Information Cycle (TM 16)

- 1. Input
 - a. Longhand draft
 - b. Shorthand notes
 - c. Machine dictation
- 2. Processing by typewriter
- 3. Output
 - a. Typed copy ready to mail

- b. Carbon copy
 - 4. Distribution
 - a. U.S. Mail
 - b. Manual distribution
 - 5. Storage/Retrieval--filing cabinet
- B. Electronic Information Cycle (TM 17)
 - 1. Input
 - a. Longhand draft
 - b. Shorthand notes
 - c. Machine dictation
 - d. Edited typed copy
 - e. Direct CRT input
 - f. Voice
 - 2. Processing--CPU
 - 3. Output
 - a. Reproduction prepared to mail
 - b. COM
 - 4. Distribution/Feedback
 - a. Electronic mail
 - b. U.S. Mail
 - c. Manual distribution
 - 5. Storage/Retrieval--electronic files

Information Processing Vocabulary List

1. **Applications Programs**--software designed for a specific application (such as maintaining accounts payable, accounts receivable, payroll, or inventory records)
2. **Automation**--the control of machines by other mechanical or electronic devices rather than by human beings
3. **Byte**--one electronic character which is typically represented by an eight-bit pattern.
4. **Cathode Ray Tube (CRT)**--a television-like screen which displays text or graphic images and allows text review and/or editing prior to storage or printing; commonly used to identify a combined keyboard/video monitor unit
5. **CPU**--the central processing unit in a computer which performs arithmetic, logical, and control functions
6. **Computer**--an electronic device that can perform arithmetic, logical, or word operations
7. **Computer Language**--an organized system of communicating a series of instructions that can be interpreted by the electronic circuitry of a CPU such as BASIC, COBOL, and FORTRAN
8. **Computer Network**--two or more connected computers with the ability to exchange data
9. **Computer Output Microfilm (COM)**--a type of output in which the document image is produced in miniaturized size directly on microfilm
10. **Computer System**--an arrangement of interactive computer components
11. **Cursor**--an area of light on a display screen which indicates the current working position
12. **Daisy Wheel Impact Printer**--a printing device, shaped like a daisy with a different character at the end of each petal, which rotates and prints a character when a hammer mechanism strikes the appropriate petal position
13. **Data**--a representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, and processing by humans or automatic machines
14. **DataBase**--a collection of related data stored electronically that can be retrieved or manipulated by software (such as a customer list or a list of customers who have made purchases exceeding \$10,000 within the past 60 days)

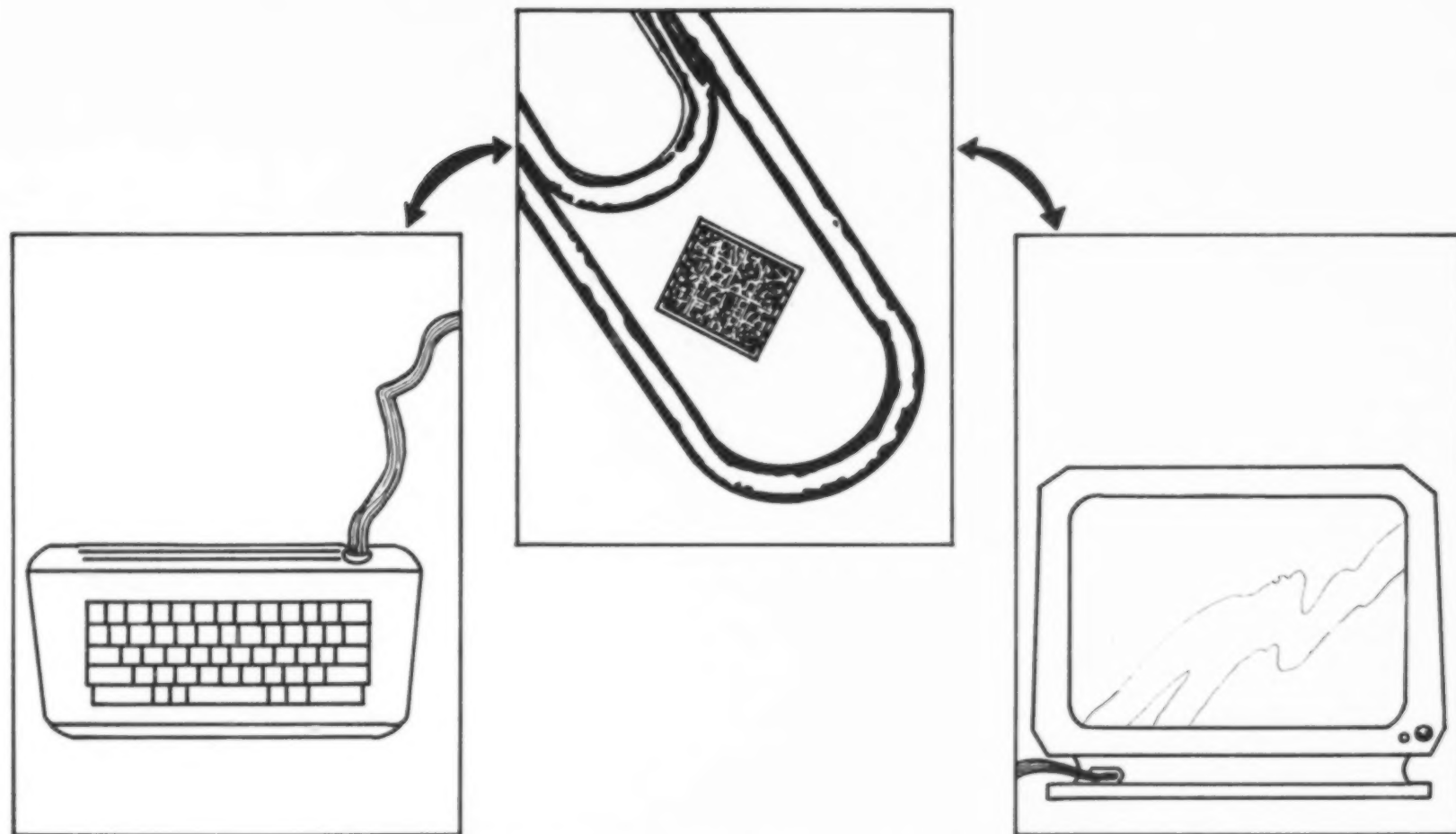
15. **Data Communications**--(1) the movement of encoded data via electrical transmission systems (2) all manual and machine operations necessary to transfer data between points of origin and reception
16. **Data Processing**--the transformation of data through processing into information which can be used for decision-making
17. **Development Software**--computer language
18. **Disk**--a flat, round magnetic storage medium capable of holding thousands or millions of characters
19. **Disk Drive**--a device that holds, spins, reads, or writes magnetic disks so that data can be input to or output from a computer
20. **Documentation**--(1) the instruction manual for hardware or software (2) the process of detailing a computer program so that others using the program are able to verify what was done
21. **Dot Matrix Printer**--an impact printing device that forms characters in a pattern of closely-spaced dots when wire hammers strike the paper to make the desired characters
22. **Ergonomics**--the study of equipment design and office furnishings to minimize user fatigue as well as psychological and physiological discomfort in a worker/machine environment
23. **External Storage**--magnetic storage media (typically disks or tapes) that can be physically removed and replaced on word processing equipment
24. **Floppy Disk**--a round, flat magnetic recording and storage medium (usually 5 1/4 inches or 8 inches in diameter) that resembles a flexible phonograph record and allows random access storage
25. **Hard Copy**--printed copy
26. **Hard Disk**--a magnetic storage medium capable of storing millions of characters of data
27. **Hardware**--the physical components of a computer system
28. **Information Processing**--(1) the generation, distribution, and storage of information by a computer, including word and data processing as well as all business and scientific operations performed by a computer (2) a term encompassing an organization's total information-handling system including word and data processing, administrative support, micrographics, electronic mail, phototype, and any other activities involving communication systems and the handling of information
29. **Input Device**--a piece of equipment used to enter text or data for computer processing

30. **Interface**--hardware or software which allows interaction between two computers or peripheral devices that cannot be directly hooked together to interact
31. **Internal Memory**--memory that cannot be physically removed from hardware
32. **I/O**--input/output device
33. **Keyboard**--the input device in a computer system similar to a typewriter keyboard with additional specialized keys
34. **Keyboarding**--actual keystrokes to input data which does not result in simultaneous printed output
35. **Kilobyte**--a measure of electronic storage equaling 1,024 bytes
36. **Letter Quality Printer**--a printing device which forms characters in solid lines rather than in patterns of dots
37. **Magnetic Disk**--a flat, round, magnetically-coated storage medium
38. **Magnetic Tape**--a magnetically-coated strip of material in either a reel, cartridge, or cassette which is used as a storage medium
39. **Mainframe**--the largest, most powerful computer
40. **Memory**--the computer storage area for data and instructions
41. **Microchip**--a miniature circuit which performs computer processing, memory, and switching functions
42. **Microcomputer**--the smallest type of computer, usually small enough to be placed on a desk or table
43. **Micrographics**--the reduction/storage procedure in which images are transferred to microfilm
44. **Minicomputer**--a small to medium-size computer that is typically slower, less costly, and capable of less storage than a mainframe computer
45. **Modem**--a conversion device which transforms computer data into electronic signals and transmits them over telephone lines
46. **Network**--(1) an inter-connected system of computers or computer peripherals (those devices which supplement a computer's activities)
(2) information transferred through a network is voice, data, video, or all three simultaneously
47. **Optical Character Reader (OCR)**--a device that can read and convert typed or printed images into magnetic impulses for use with text-editing equipment

48. **Operating System**--the most basic type of software that controls how a computer functions and which applications software it will run
49. **Output Device**--a piece of hardware which displays or prints the information produced by a computer
50. **Peripherals**--devices such as printers, CRTs, or OCRs, that can be interfaced to the CPU to facilitate efficient system operation when receiving input, processing data, and producing output
51. **Printer**--a device which transfers computer information to hard copy
52. **Program**--an instruction sequence which directs computer operations to solve a defined problem
53. **Random Access Memory (RAM)**--a working area for temporary, volatile storage within the computer
54. **Random Access**--the standard storage method for disks which incorporates the ability to locate a particular memory address without examining all previous addresses
55. **Retrieval**--to access a record or document previously stored in memory or on external media for additional use or processing
56. **Read Only memory (ROM)**--a computer's permanent memory which is typically factory installed
57. **Scroll**--to shift soft copy vertically or horizontally, allowing additional text material to be seen
58. **Sequential Access**--the method by which records are examined in tape storage which requires each record to be examined in the order in which it is stored on the tape
59. **Shared Logic System**--a system in which two or more terminals share a CPU
60. **Silicon**--the basic element in microchips
61. **Soft Copy**--the image seen on a VDT
62. **Software**--the program which directs computer operations
63. **Software Package**--a program which directs the system to perform various functions
64. **Standalone**--a system which functions without connection to other systems or peripherals
65. **Tape Drive**--The device which transports magnetic tape over read/write heads for input and output

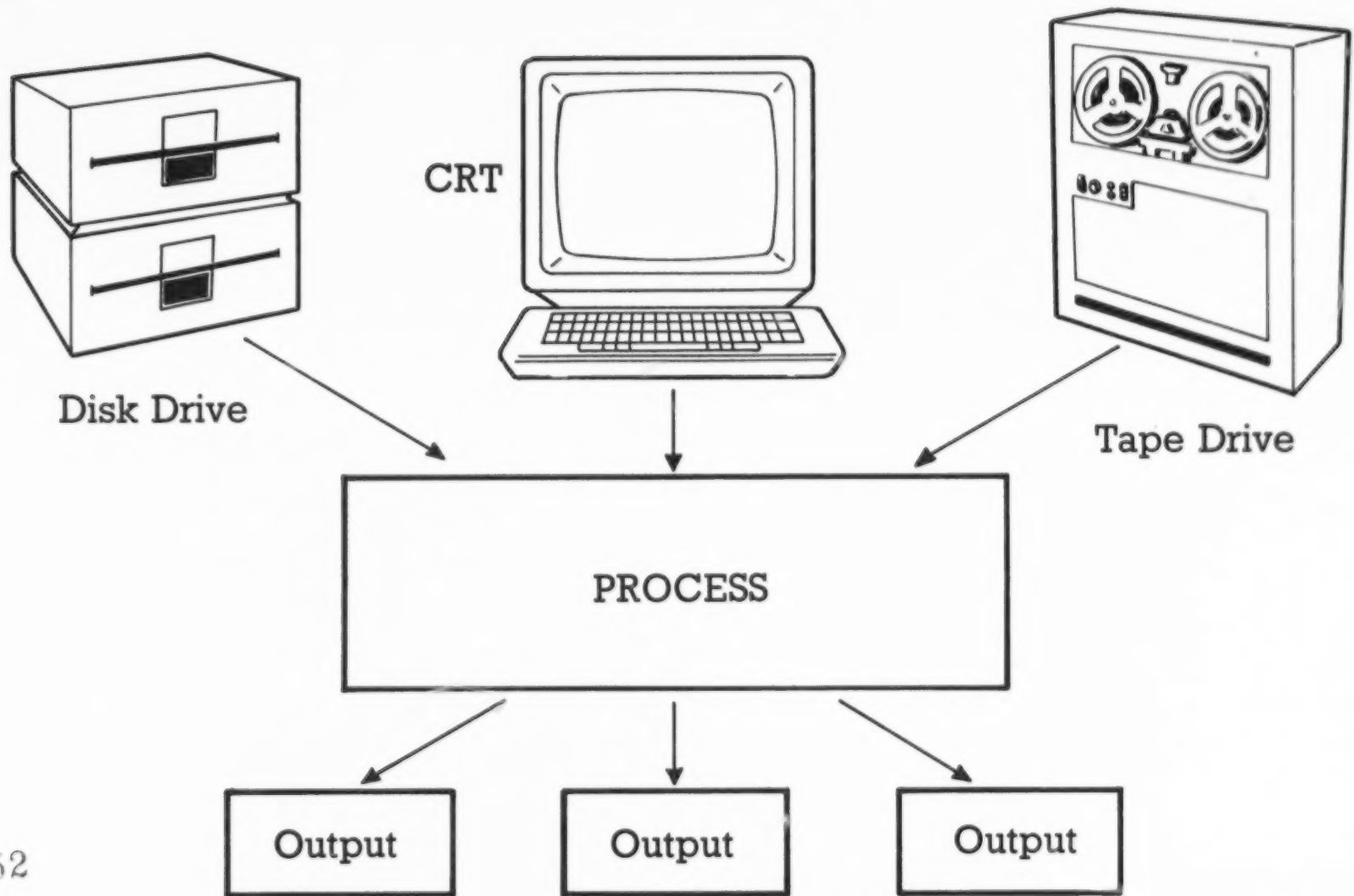
- 66. **Telecommunications**--information transmission from one location to another via telephone or other communication lines
- 67. **TELEX/TWX**--a teletypewriter message transmission service
- 68. **Terminal**--a computer input/output device containing a keyboard and visual display screen
- 69. **Video Display Terminal (VDT)**--the output device which displays soft copy
- 70. **Word Processing**--
 - A. In a standalone environment: The manipulation of alphanumeric characters in text to facilitate communication; a system for producing finished documents from input originated by authors.
 - B. In a functional environment: A system of trained personnel, specific procedures, and automated equipment which facilitates manipulating letters and numbers efficiently and economically into written business communication documents

What Makes a Computer System?



Keyboard + Microchip + CRT screen

The "I" in I/O



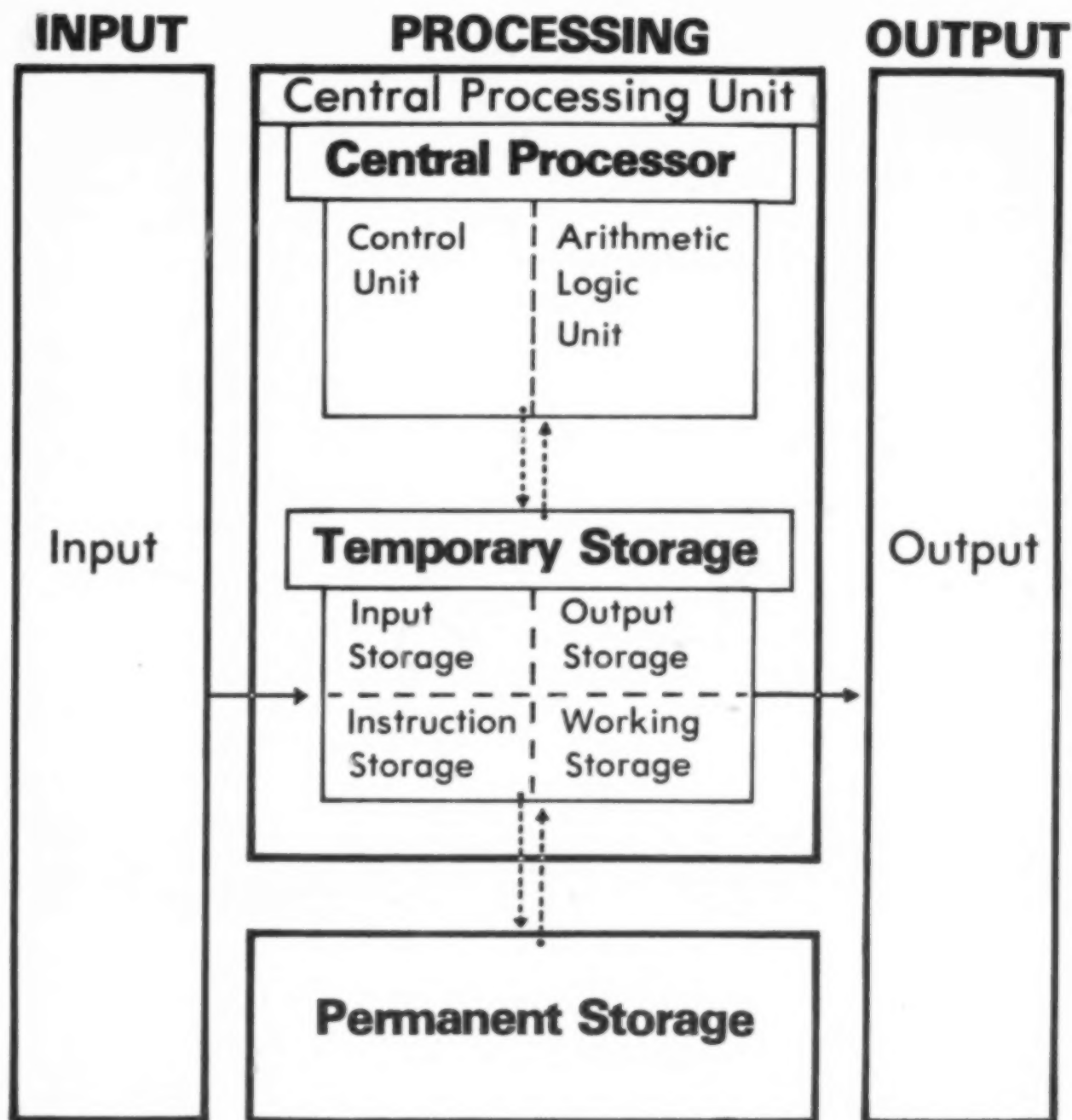
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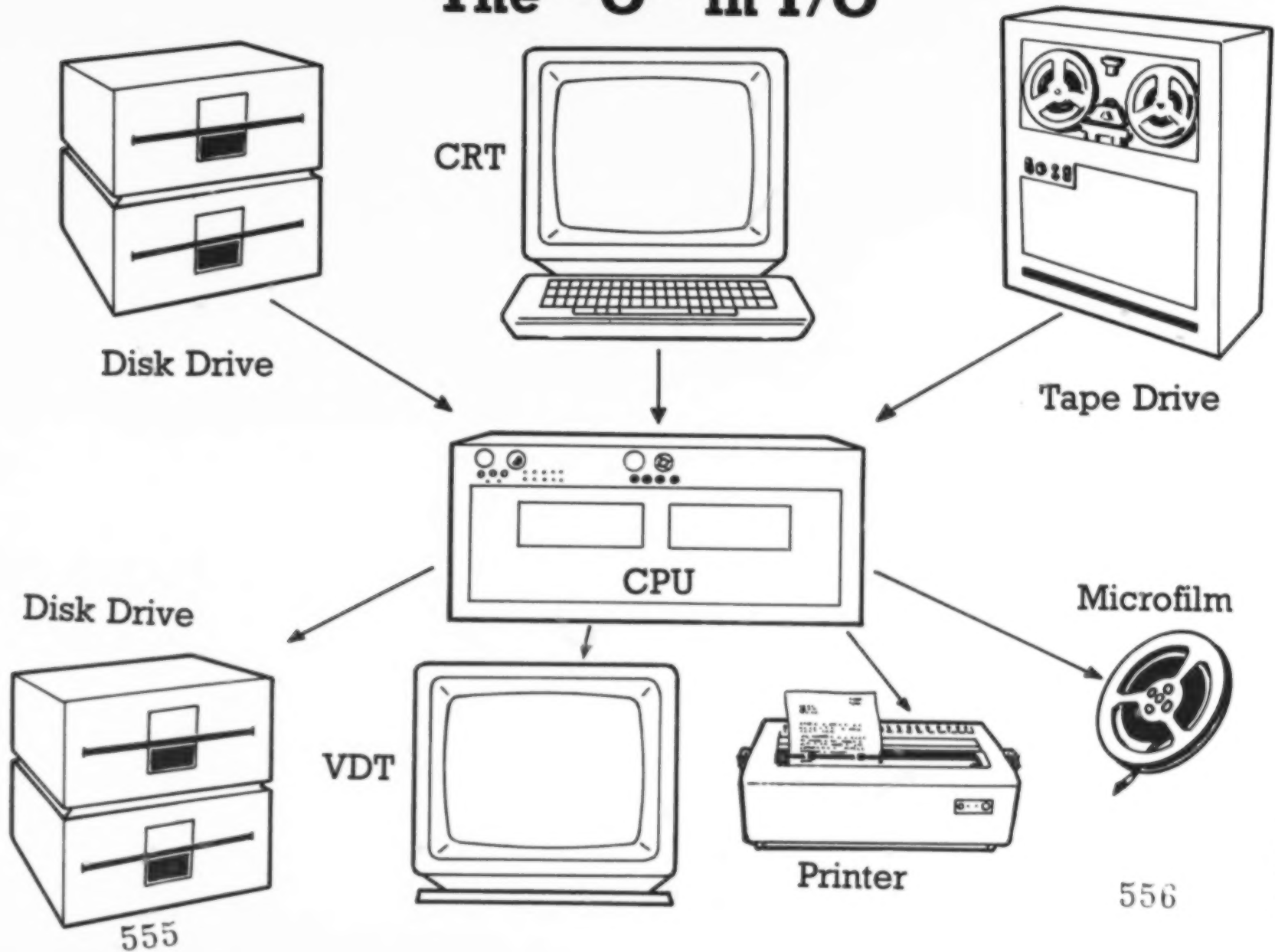
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TM 2

Central Processing Unit



The "O" in I/O



● **Print: Solid Line or Dots?**

Read and discuss objectives.

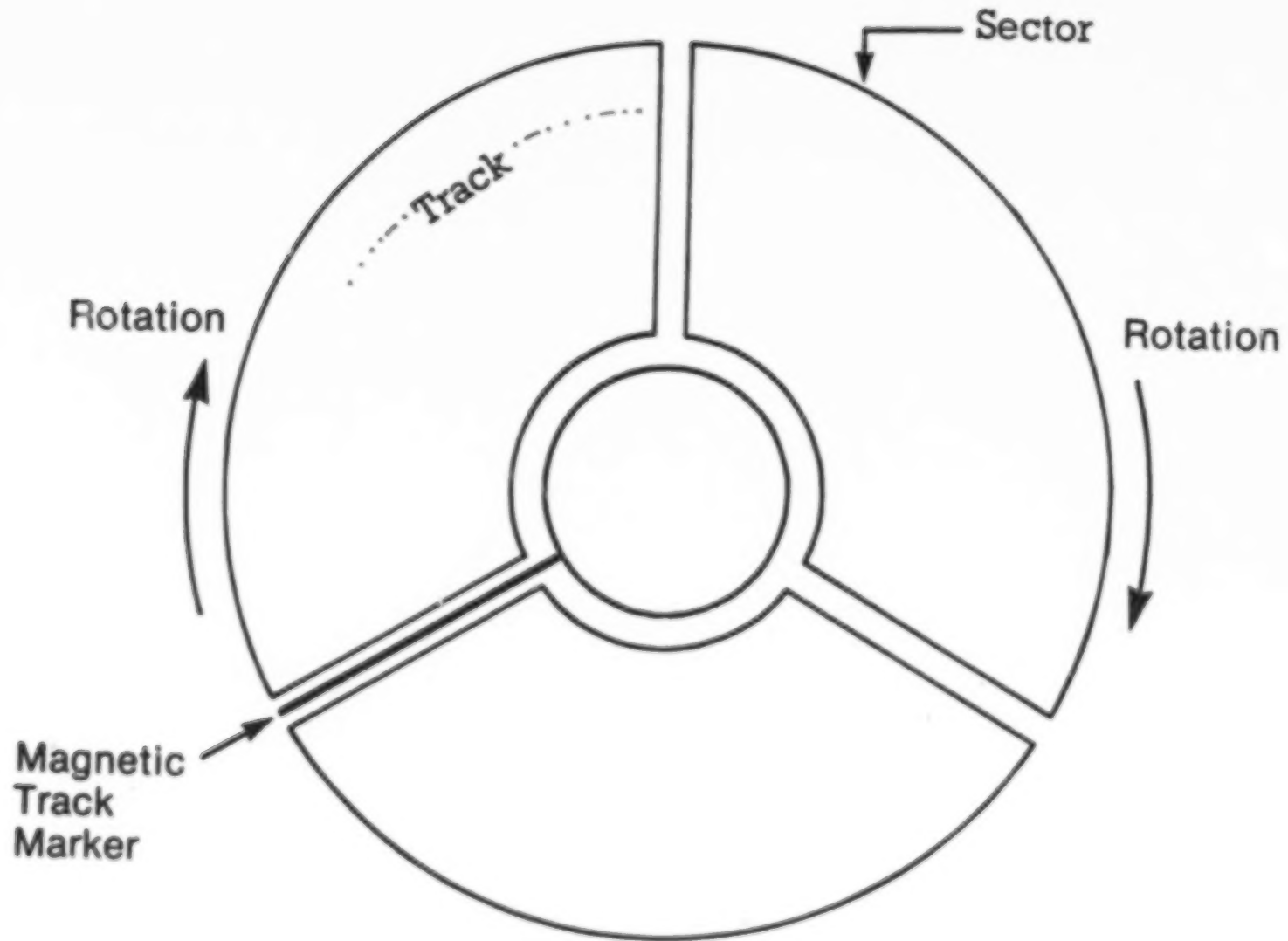
Complete Assignment Sheet.

Complete Assignment Sheet.

● Complete posttest.

● This lesson has presented
leave time, as well as
compensation insurance.
have questions which
personnel section in the

Disk Storage



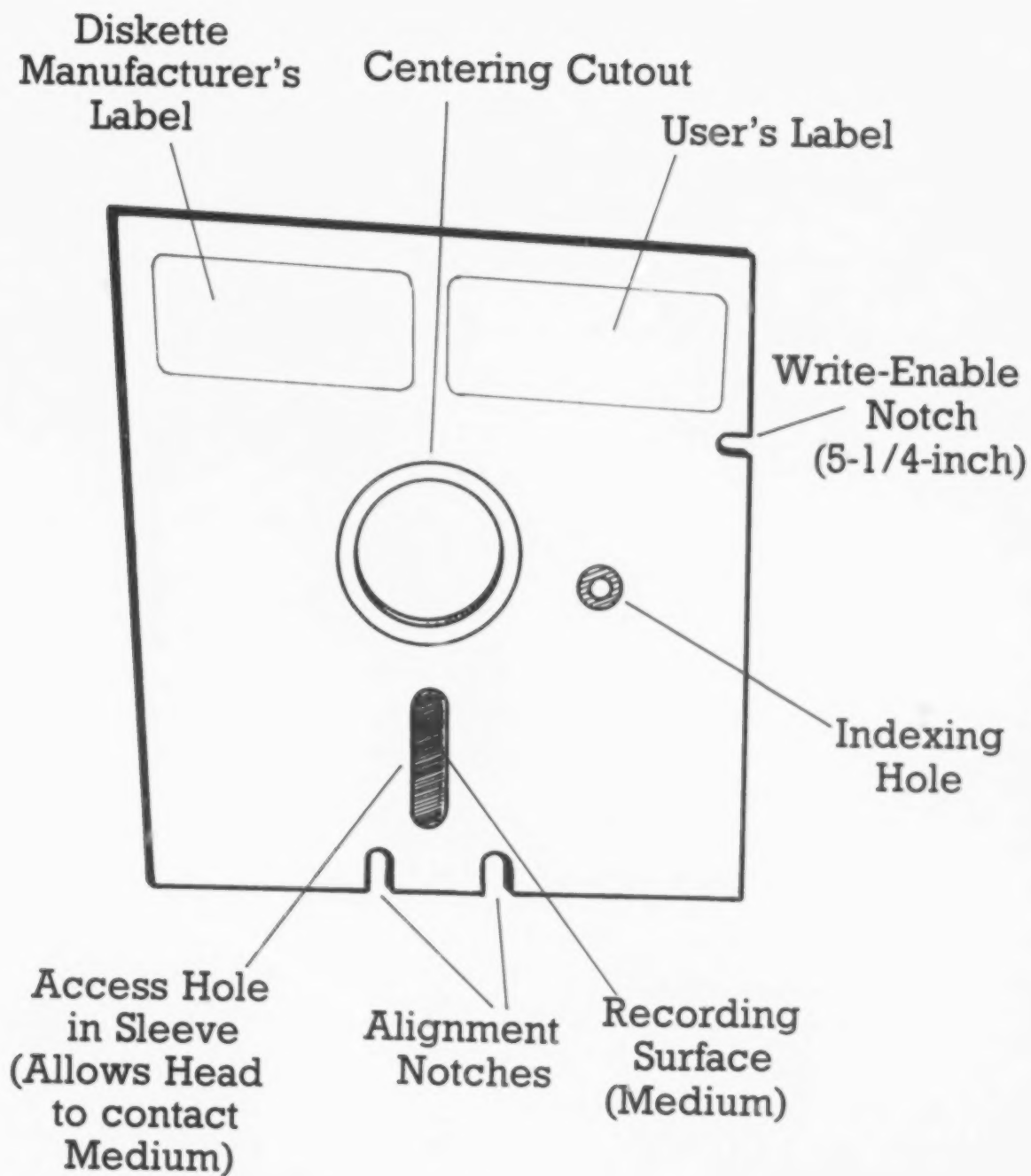
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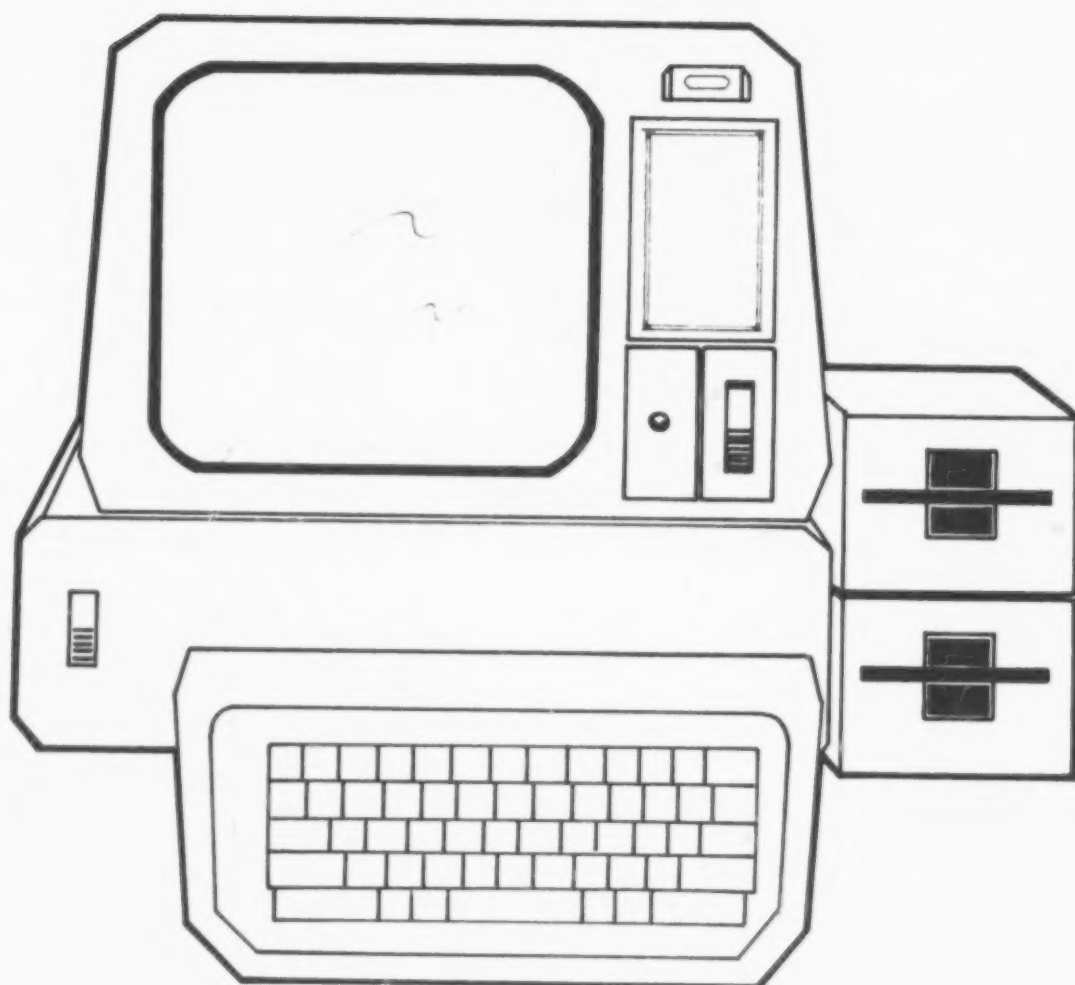
TM 6

Floppy Disk

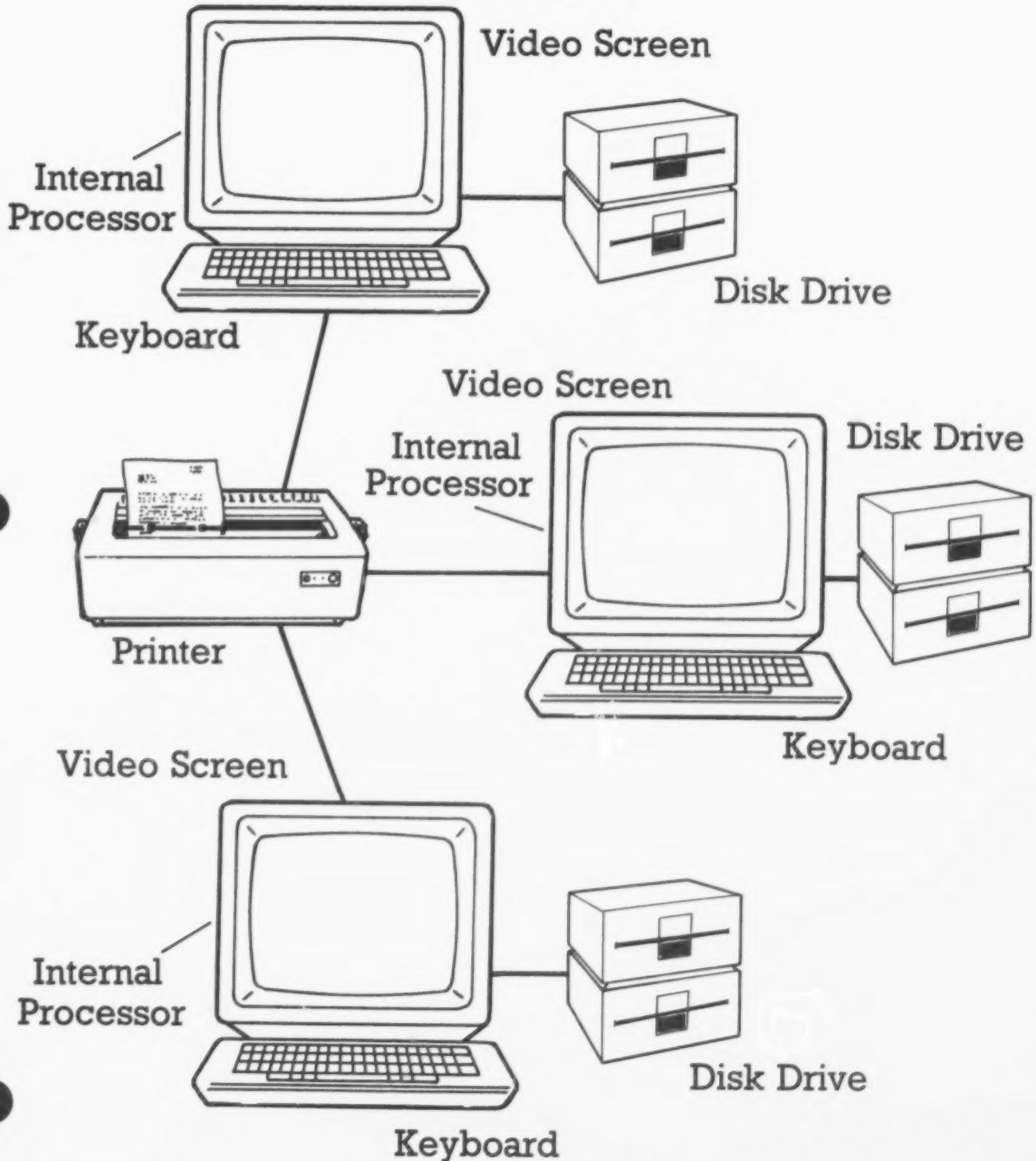


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Computer Configurations: Standalone

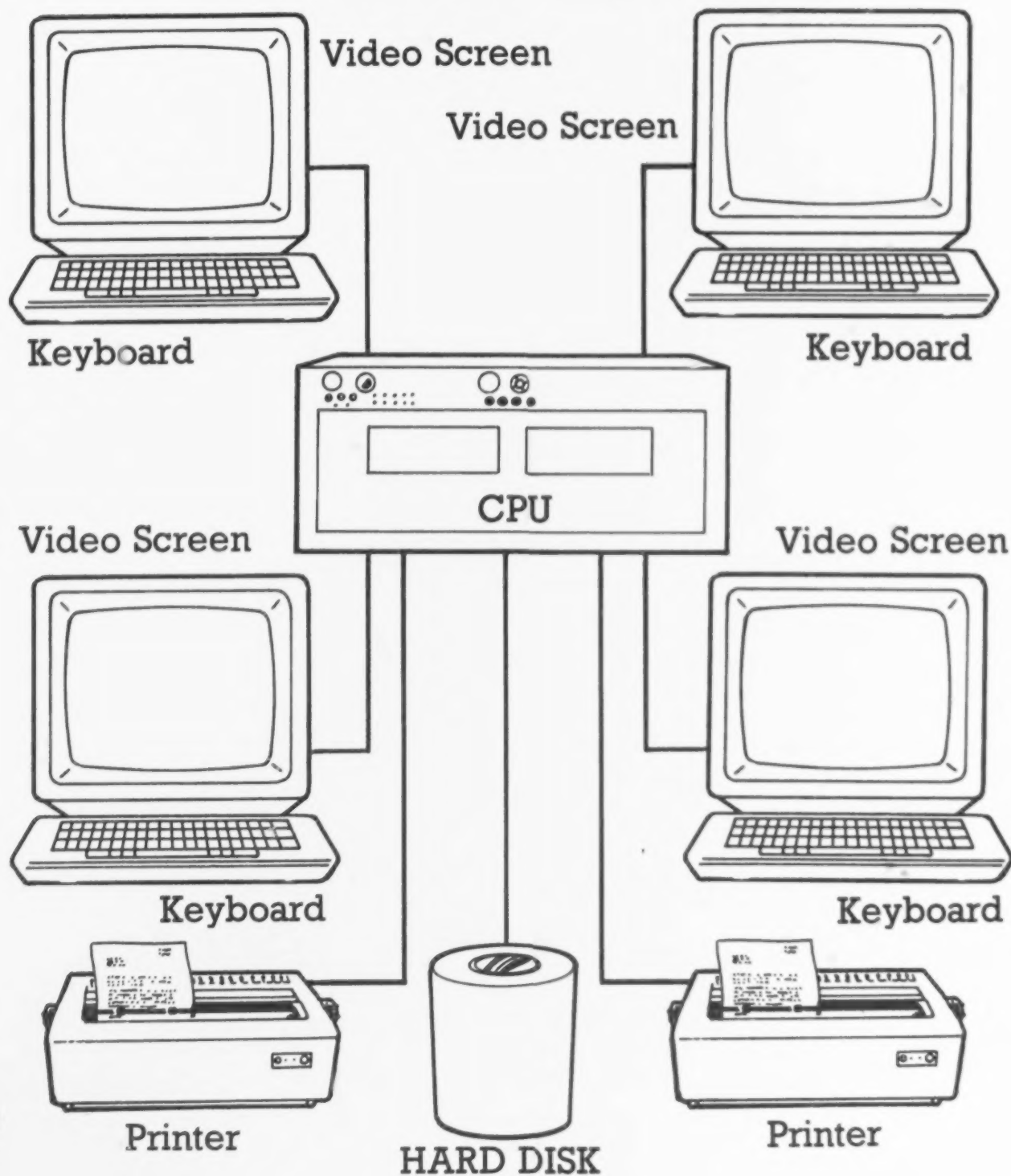


Computer Configurations: Shared Resource



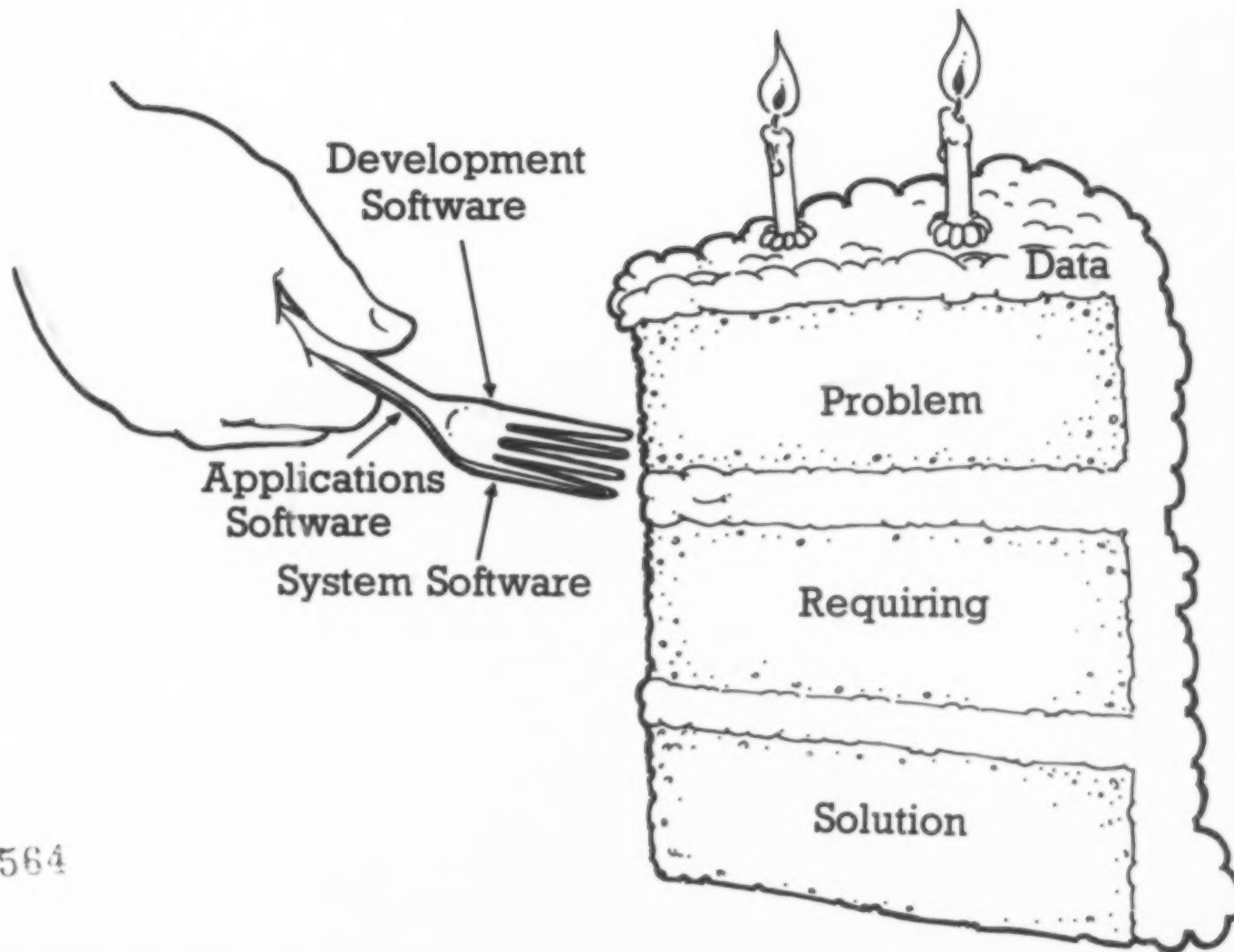
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Computer Configurations: Shared Logic

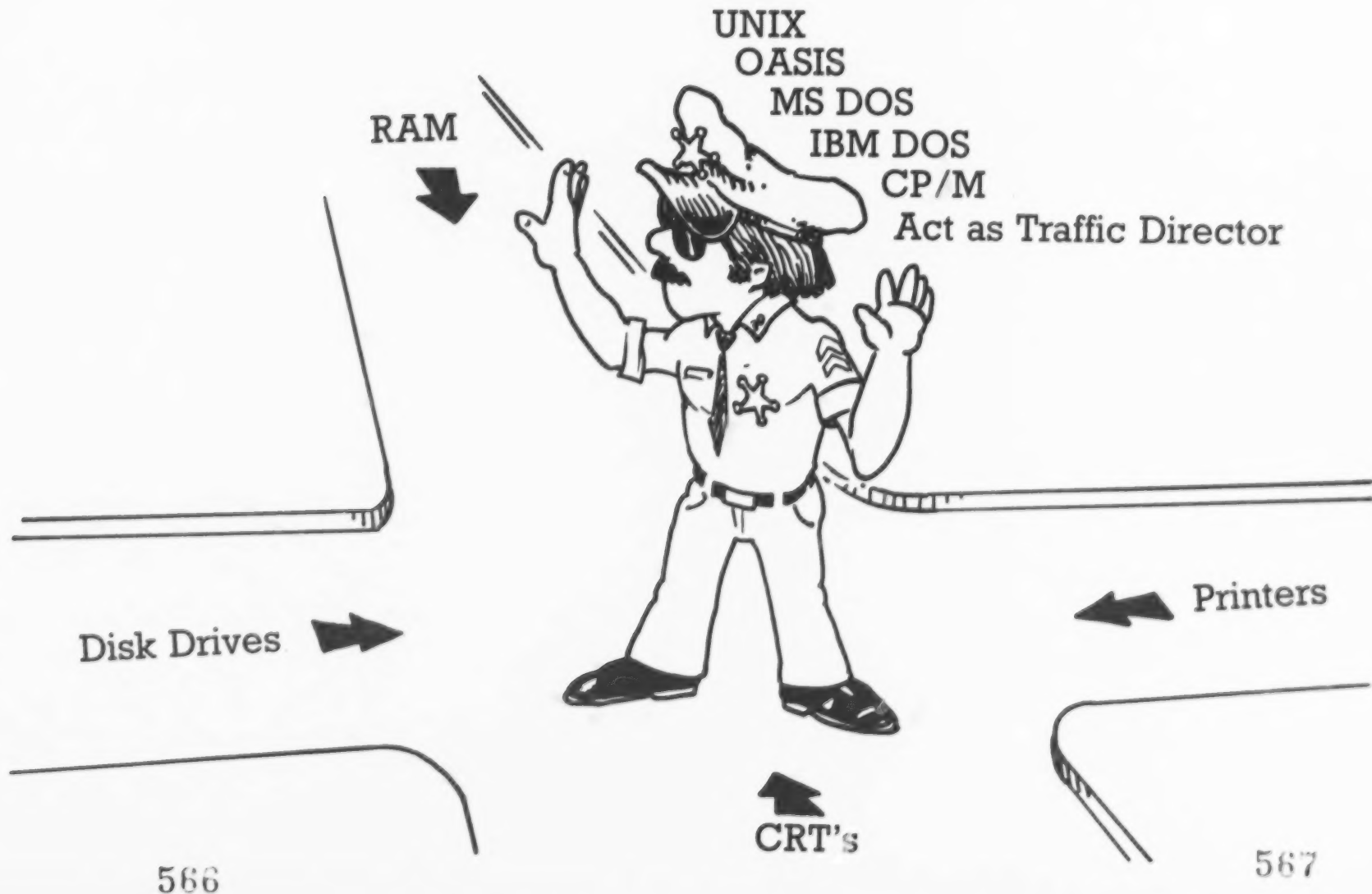


563

Biting into a Problem



Systems Software



Development Software $\equiv$ Languages

Assembler

C

Altran

FORTRAN

Algol

BASIC

PASCAL

DIBOL

COBOL

Machine

LOGO

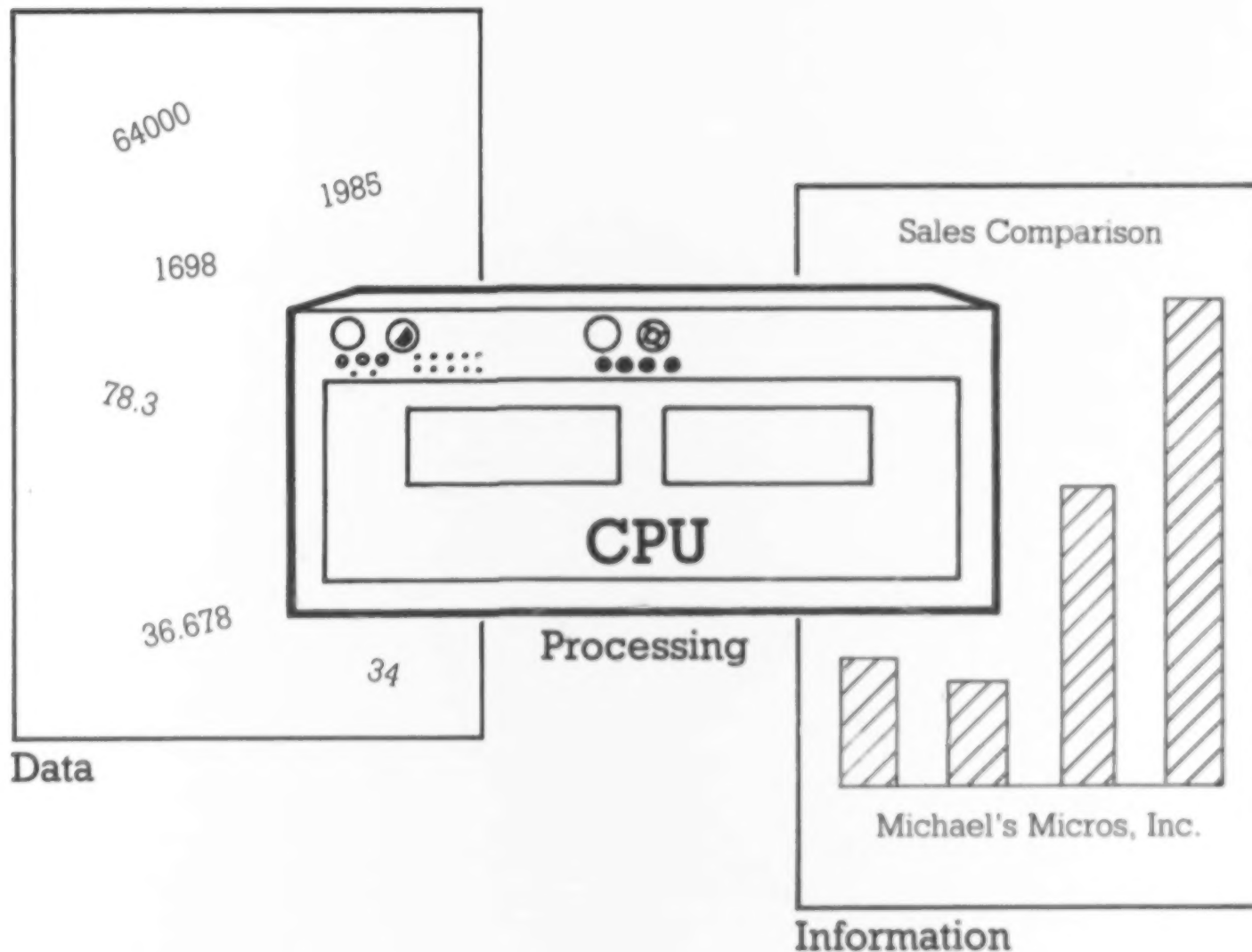
PL/1

Lisp

RPG

SNOBOL

Data → Information



Packaged Software vs. Custom Software

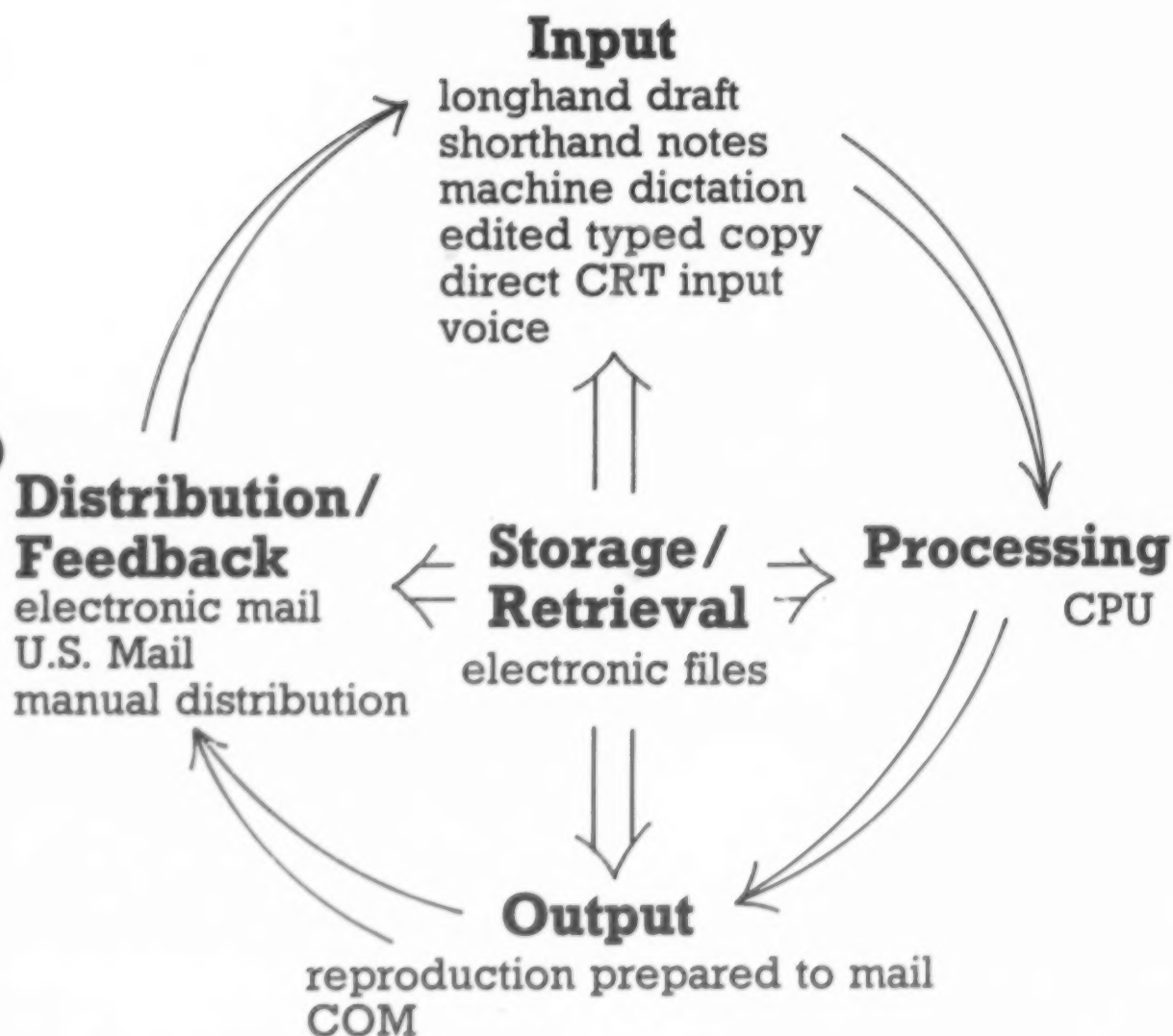
Packaged

1. Theoretically thorough review process prior to publication/mass marketing
2. Ready to use immediately
3. Lower cost because many customers share the cost of development
4. Better documentation
5. Typically user-friendly
6. User generic
7. May not be developer-supported
8. May require adapting user need to fit software capability

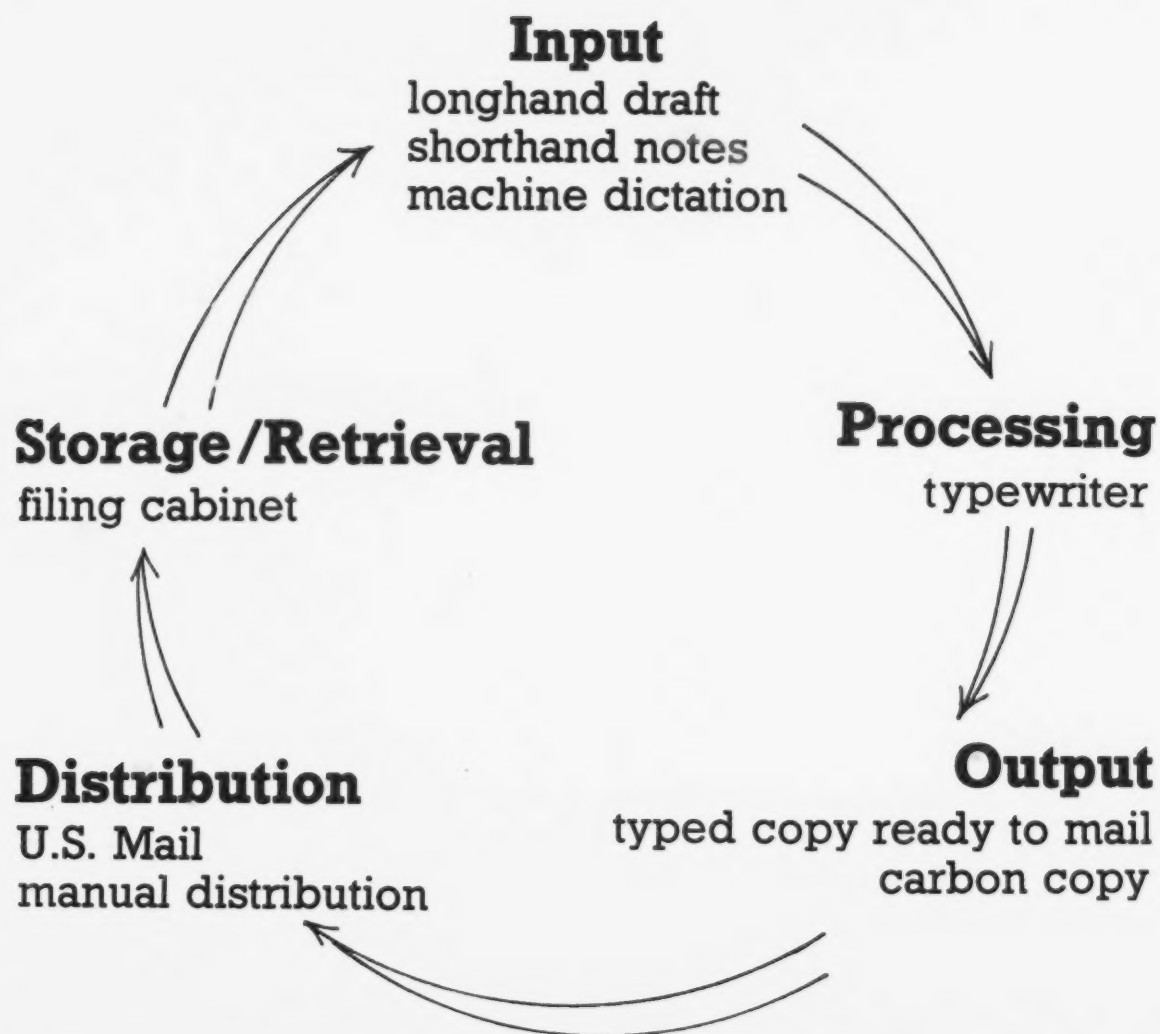
Custom

1. Potential lack of thorough review prior to release to user
2. Delay in use due to production time following final design decisions
3. Higher cost
4. May have little or weak documentation
5. May be user-friendly
6. User specific
7. More likely to be developer-supported
8. Specific to user

The Electronic Information Cycle



The Traditional Information Cycle



Unit IX - Information Processing
Lesson 1 - Information Processing: The Basics

ASSIGNMENT SHEET 1: The Traditional Information Cycle

Directions: Diagram and label the traditional information cycle.

Unit IX - Information Processing
Lesson 1 - Information Processing: The Basics

ASSIGNMENT SHEET 2: The Electronic Information Cycle

Directions: Diagram and label the electronic information cycle.

Unit IX - Information Processing
Lesson 1 - Information Processing: The Basics

ASSIGNMENT SHEET 3: Learning the Vocabulary for Information Processing

Directions: Match each term with the correct definition.

- | | |
|---------------------------|--------------------|
| A. Computer | H. Interface |
| B. Computer Network | I. I/O |
| C. Data | J. Keyboard |
| D. Disk Drive | K. Memory |
| E. Hard Copy | L. Output Device |
| F. Information Processing | M. Software |
| G. Input Device | N. Word Processing |

- _____ 1. Hardware or software which allows interaction between the computers or peripheral devices that cannot be directly hooked together
- _____ 2. Printed copy
- _____ 3. An electronic device that can perform arithmetic, logical, or word operations
- _____ 4. A representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, and processing by humans or automatic machines
- _____ 5. A device that holds, spins, reads, or writes magnetic disks so that data can be input to or output from a computer
- _____ 6. A program that directs computer operations
- _____ 7. A piece of hardware which displays or prints the information produced by a computer
- _____ 8. Two or more connected computers with the ability to exchange data
- _____ 9. The computer storage area for data and instructions
- _____ 10. In a standalone environment, the manipulation of alphanumeric characters in text to facilitate communication; a system for producing finished documents from input originated by authors.
- _____ 11. A piece of equipment used to enter text or data for computer processing

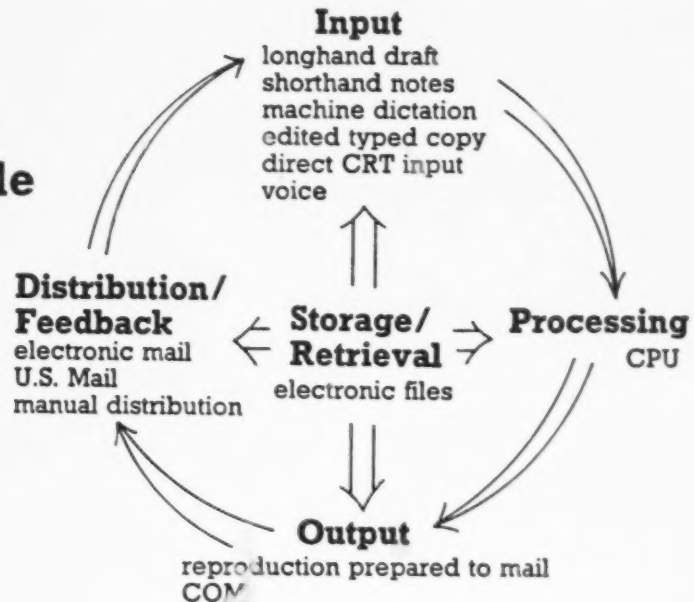
- _____ 12. The input device in a computer system similar to a typewriter keyboard with additional specialized keys
- _____ 13. Input/output device
- _____ 14. The generation, distribution, and storage of information by a computer

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ANSWERS TO ASSIGNMENT SHEETS

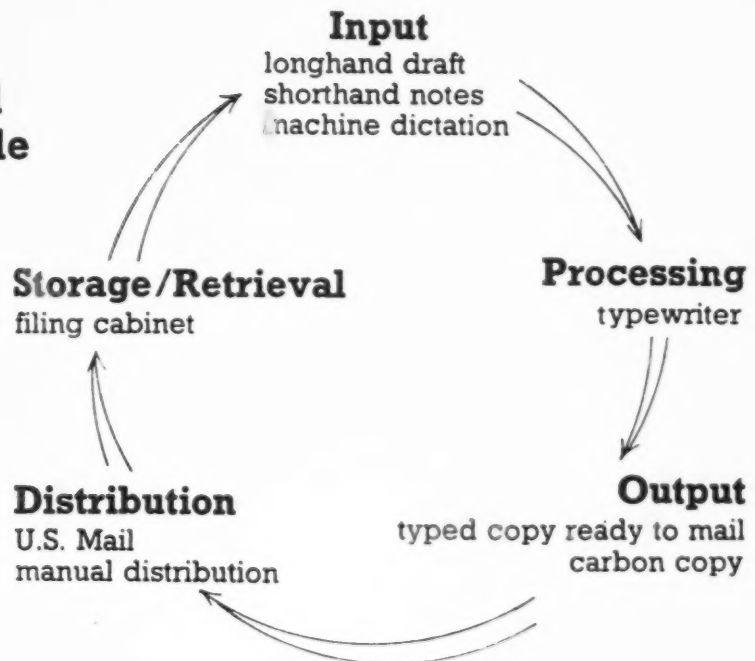
ASSIGNMENT SHEET 1:

The Electronic Information Cycle



ASSIGNMENT SHEET 2:

The Traditional Information Cycle



ASSIGNMENT SHEET 3:

1. H
2. E
3. A
4. C
5. D
6. M
7. L
8. B
9. K
10. N
11. G
12. J
13. I
14. F

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Unit IX - Information Processing
Lesson 1 - Information Processing: The Basics

POSTTEST

I. VOCABULARY

Directions: In the blanks provided at the right, enter the computer term which corresponds to the definitions provided. Use words from the list given below.

CPU	floppy disk	microcomputer
computer	hard copy	operating system
computer system	hardware	output device
cursor	information processing	printer
data	input device	program
database	interface	software
data processing	I/O	word processing
disk drive	keyboard	
documentation	memory	

1. the physical components of a computer system _____
2. the instructions for hardware or software _____
3. a representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretations, and processing by humans or automatic machines _____
4. a sequence of instructions which directs computer operations to solve a defined problem _____
5. printed copy _____
6. the most basic type of software that controls how a computer functions and which applications software it will run _____
7. a device that holds, spins, reads, or writes magnetic disks so that data can be input to or output from a computer _____
8. the generation, distribution, and storage of information by a computer, including word and data processing as well as all business and scientific operations performed by a computer _____

9. hardware or software which allows two computers or peripheral devices that cannot be directly hooked together to interact
10. an area of light on a display screen which indicates the current working position
11. the computer storage area for data and instructions
12. the smallest type of computer, usually small enough to be placed on a desk or table
13. a piece of hardware which displays or prints the information produced by a computer
14. the program which directs computer operations

II. SHORT ANSWER

Directions: Briefly answer each question.

1. List the components required for a functional computer system.
 - a. _____
 - b. _____
 - c. _____
2. Explain the purpose of an input device.
3. Explain the purpose of processing.

4. Explain the purpose of output.

5. Diagram and label the electronic information cycle.

Unit IX - Information Processing
Lesson 1 - Information Processing: The Basics

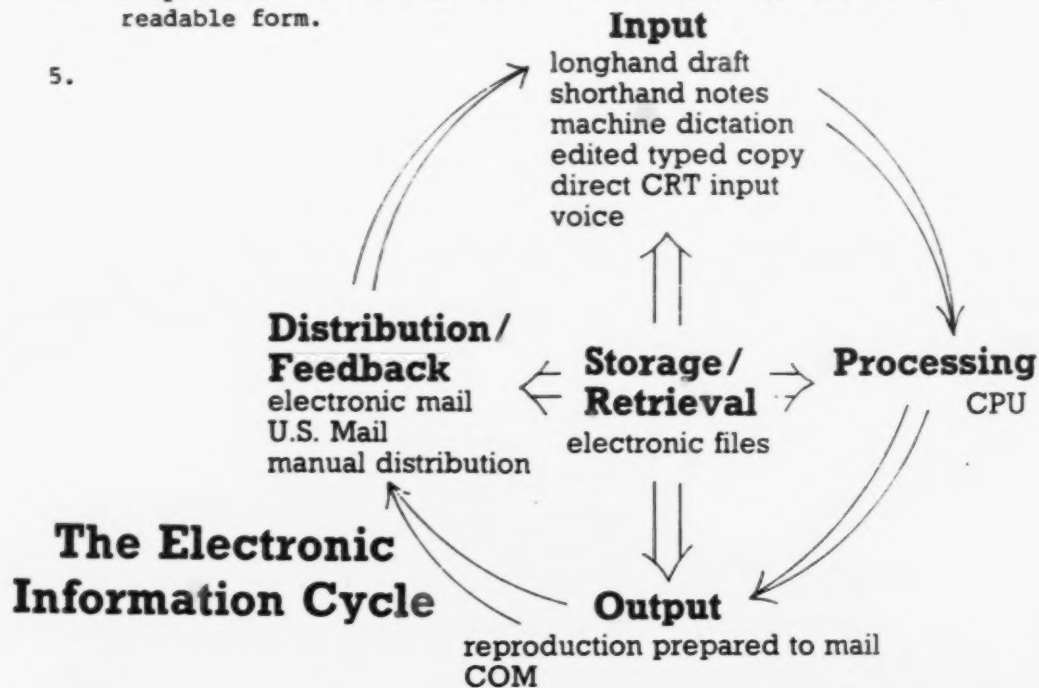
POSTTEST KEY

I.

- | | |
|---------------------|---------------------------|
| 1. hardware | 8. information processing |
| 2. documentation | 9. interface |
| 3. data | 10. cursor |
| 4. program | 11. memory |
| 5. hard copy | 12. microcomputer |
| 6. operating system | 13. output device |
| 7. disk drive | 14. software |

II. 1. input, processor, output

2. Input converts data from human-readable form into machine-readable form.
3. Processing converts data into a form suitable for decision-making.
4. Output converts data from machine-readable form into human-readable form.
- 5.



Unit IX - Information Processing
Lesson 2 - Word Processing: The Basics

LESSON OBJECTIVES

1. Given 13 word processing terms and definitions, the student will be able to match terms with their definitions with 90 percent accuracy within 25 minutes.
2. Given a word processing system, the student will describe 10 features needed for general office applications with 80 percent accuracy within 25 minutes.
3. Upon completion of this unit, the student will be able to list and describe 4 components of display, linear, and blind word processing equipment with 80 percent accuracy within 20 minutes.

SUGGESTED ACTIVITIES

I. Instructor

- A. Prepare transparencies.
- B. Provide objectives and information sheets to students.
- C. Discuss information sheets.
- D. Demonstrate basic features of the equipment available for student use.
 1. Entry/Keyboarding
 2. Storage
 3. Retrieval
 4. Revision
 5. Formatting
 6. Payout
 7. Block Operations
- E. Assign and evaluate Assignment Sheets.
- F. Assign entry-level projects to acquaint students with the features of available hardware. Utilize learning materials provided by vendor, textbook assignments adapted to available hardware features, or teacher-developed materials which specifically utilize the features and limitations of hardware available.
- G. Administer posttest and evaluate.

II. Student

- A. Read objectives and information sheets.
- B. Complete Assignment Sheets.
- C. Take posttest.

INSTRUCTIONAL MATERIALS

I. Objective Sheet

II. Information Sheets

III. Transparency Masters

- A. TM 1: Blind Word Processor
- B. TM 2: Display Word Processor
- C. TM 3: Linear Display Word Processor

IV. Assignment Sheets and Answers

- A. AS 1: Learning the Vocabulary for Word Processing
- B. AS 2: Investigating Word Processing Systems
- C. AS 3: Applications of Word Processing Systems

V. Posttest and Key

Unit IX - Information Processing
Lesson 2 - Word Processing: The Basics

INFORMATION SHEET

I. Terms and Definitions

- A. **Blind Word Processor**—a word processing system not equipped with a visual display screen
- B. **Block Move**—revising a document by moving an entire paragraph or group of paragraphs from one part of the document to another
- C. **Buffer**—temporary storage in which text is held during editing prior to printing or placing the material in permanent storage
- D. **Communicating Text Editor**—a word processing machine that can transmit and receive text material via telephone lines forming connections with other word processing machines
- E. **Configuration**—arrangement of specific components and peripherals that comprise a system
- F. **Cursor Keys**—keys used to move the cursor right, left, up or down without inserting spaces into the document
- G. **Display Word Processor**—a word processing system equipped with a visual display screen
- H. **Distribution**—the fourth phase of the document cycle during which the information is communicated
- I. **Editing**—revising text within electronic memory to produce an updated document without re-keying
- J. **Electronic Mail**—transferring documents via satellites, cables, or telephone wires which eliminates the physical movement of paper
- K. **Electronic Typewriter**—a typewriter with internal memory that can automatically perform certain typing tasks, such as formatting
- L. **Format**—the margins, spacing, and indentations which comprise document layout and control its appearance
- M. **Global change**—replacing a section of text with another section of text automatically wherever it appears in a document
- N. **Global Search**—a feature on word processing hardware which allows the user to automatically locate a particular word, phrase, or string of characters within a document

- O. **Input**--the first phase in the document cycle in which text or data are entered into a computer or word processor
- P. **Intelligent Copier**--a computer-controlled photocopier which can produce copies from paper or magnetic disks
- Q. **Linear Display Word Processor**--a feature of some word processors that enable the operator to view a single line of type in a "thin screen" or "window into memory" (often classified as a type of word processor that falls between blind and display word processors)
- R. **Merging**--combining of two or more files according to user instruction
- S. **Menu**--options listing
- T. **Origination Media**--the form used to provide input for word processing applications such as machine dictation, longhand, rough draft, and storage media
- U. **Output**--the third phase of the document cycle during which information is printed and reproduced
- V. **Illyout**--printing documents from storage
- W. **Procedures**--specific standardized guidelines or principles used to facilitate task completion
- X. **Principal**--word originator
- Y. **Processing**--the second phase of the document cycle in which the data input is manipulated to produce useful information
- Z. **Production Log Sheet (PLS)**--a standard word processing form used to record document production statistics such as date/time in, date/time out, principal, and lines produced
- AA. **Production Standard**--a specific amount of work that should be produced in a specified time period (such as lines per hour)
- BB. **Recall**--to access a record or document previously stored in memory or on external media for additional use or processing
- CC. **Records Management**--managing documents and information from creation through processing, maintenance, and protection to archival retention or destruction
- DD. **Reprographics**--document reproduction
- EE. **Revision**--an alteration in previously produced text
- FF. **Rough Draft**--a document which has been revised

- GG. **Screenload**--the amount of text that can be viewed on the screen at one time
- HH. **Storage**--the fifth phase of the document cycle during which information is recorded on disk or other storage media for retrieval
- II. **Text Editing**--rearranging or changing text through adding, deleting, modifying or reformatting
- JJ. **Turnaround**--the amount of time between text submission by the principal and completion in the word processing center
- KK. **Variable**--a word or phrase which changes in a standardized form document
- LL. **Word Originator**--an individual who generates input
- MM. **Word Processing**--a system of trained personnel, specific procedures, and automated equipment which facilitates manipulating letters and numbers efficiently and economically into written business communication documents
- NN. **Word Processing Operator**--one who uses word processing equipment to produce documents

II. Hardware Components

- A. **Keyboard**--similar to standard typewriter keyboard with additional keys
- B. **Internal processing unit**--controls system operation and capabilities
- C. **Storage**--may be internal or external
- D. **Printer**--device that produces hard copy
- E. **Display**--only on display word processors
 - 1. Soft copy screen which allows the user to verify input and format prior to producing hard copy
 - 2. Screenload ranging from a few characters to a full page

III. Types of Word Processing Systems

- A. **Menu**
 - 1. As a restaurant provides menus listing the food options available, a word processing menu lists the word processing options available such as document creation, editing, or printing. The option selected may be accessed by an alpha or numeric code, cursor keys followed by the data-entry key, or mouse movement and option selection.

2. Following option selection, a second more detailed menu may appear.

B. Function Menu

1. When certain functions are activated, the program may provide function prompts to lead the user through the option selected.
2. For example, to search for text, the following might be necessary:
 - a. Depress search key.
 - b. Prompt display: Text to locate?
 - c. User keyboards the text needed followed by data entry key.
 - d. The processor searches forward in memory to locate the specified text and positions the cursor on the first character of the text in soft copy.

C. Coded System

1. In a coded system the user must either remember the key sequence to activate options or functions or refer to documentation for the key sequence.
2. No soft copy listing is provided.

IV. Potential Features of a Word Processor

- A. Centering--automatic centered placement of a character string within set margins is typically included in a word processor.
- B. Copy--a character sequence can be duplicated from one location to one or more additional locations.
- C. Decimal Alignment--automatically positions columnar numbers correctly.
- D. Format Line--a soft copy tool shows margins, tab settings, or vertical spacing.
- E. Global Search and Replace--when a recurrent character string (for example, a word) is to be replaced by another character string, the system will locate the original string and either prompt for acceptance/replacement of the original string or automatically replace, depending upon the word processor.
- F. Mandatory Page Break--a user-keyed command will unconditionally end one page and the system will automatically begin the next page with the text that follows the page-break command.

- G. Move--a character sequence may be cut from one location and pasted into another location within the document.
- H. Pagination--the text is automatically divided into pages with the number of lines specified by default or by the user.
- I. Right Margin Justification--the system will automatically align the right margin in hard copy even though it may not show as right justified in soft copy.
- J. Search--given a character string (for example, a word), the system will scan the text until a like string is located or until the entire document is searched without locating a match. If a like string is found, the cursor will be positioned on either the first character of the string or on the first character following the string, depending upon the word processor being used.
- K. Status Line
 - 1. The line in which the system communicates to the user by displaying messages.
 - 2. Messages may include the following:
 - a. Document line and line space at which the cursor is positioned
 - b. The file name being accessed
 - c. Cursor mode
 - d. Memory availability
- L. Word Wraparound/Word Wrap
 - 1. When the last space of the line is used, the cursor moves to the first space of the next line without the data entry key.
 - 2. When the last space of the line is used before the end of the word, the keystrokes between the last entered black space and the end of the line are moved to the beginning of the next line.
- V. Programs Which Expand the Capabilities of a Word Processor
 - A. Communications--with communications software, compatible word processors can exchange information.

B. Electronic dictionary

1. The word processor scans a document and checks spelling by comparing the keyed words with the tens of thousands of words in the electronic dictionary.
2. Words that do not match dictionary entries are emphasized in soft copy to allow the user to correct errors or verify words not contained in the dictionary.

C. Forms--within the word processor, forms can be created so that the data is entered on the word processor and then output onto existing printed forms in the appropriate format.

D. Graphics--this capability enables an author to illustrate text with charts or graphs prepared on a graphics printer.

E. List Processing

1. This feature allows a variable to be put into a file and then merged with a form document.
2. For example, the names and addresses in the list file could be merged with a form letter so that each person receives an individually addressed letter with a personal salutation.

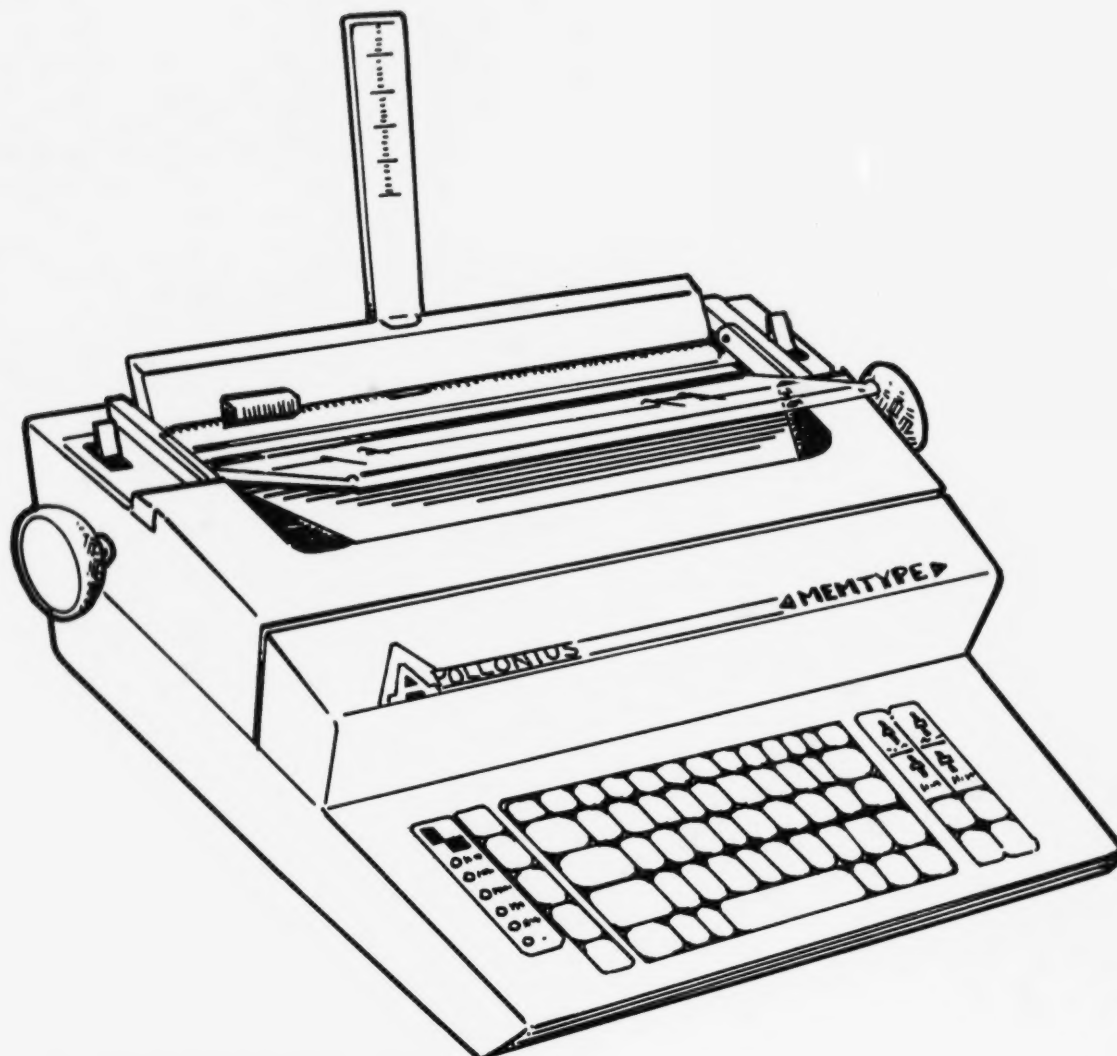
F. Mathematics

1. Mathematical functions may be performed in varying levels of sophistication, depending upon software capabilities.
2. Most will perform the four basic functions and may also subtotal columns, total rows, or calculate averages, percentages, or a grand total.
3. The more powerful packages may include such functions as accounts receivable, payroll, or other recordkeeping or statistical functions.

G. Sorting

1. Given a listing of records, this program can arrange the data alphabetically or numerically in ascending or descending order.
2. The program may also contain a select feature, allowing the user to select all records matching specified criteria such as all customers in Missouri or all high school seniors whose ZIP codes begin with 644.

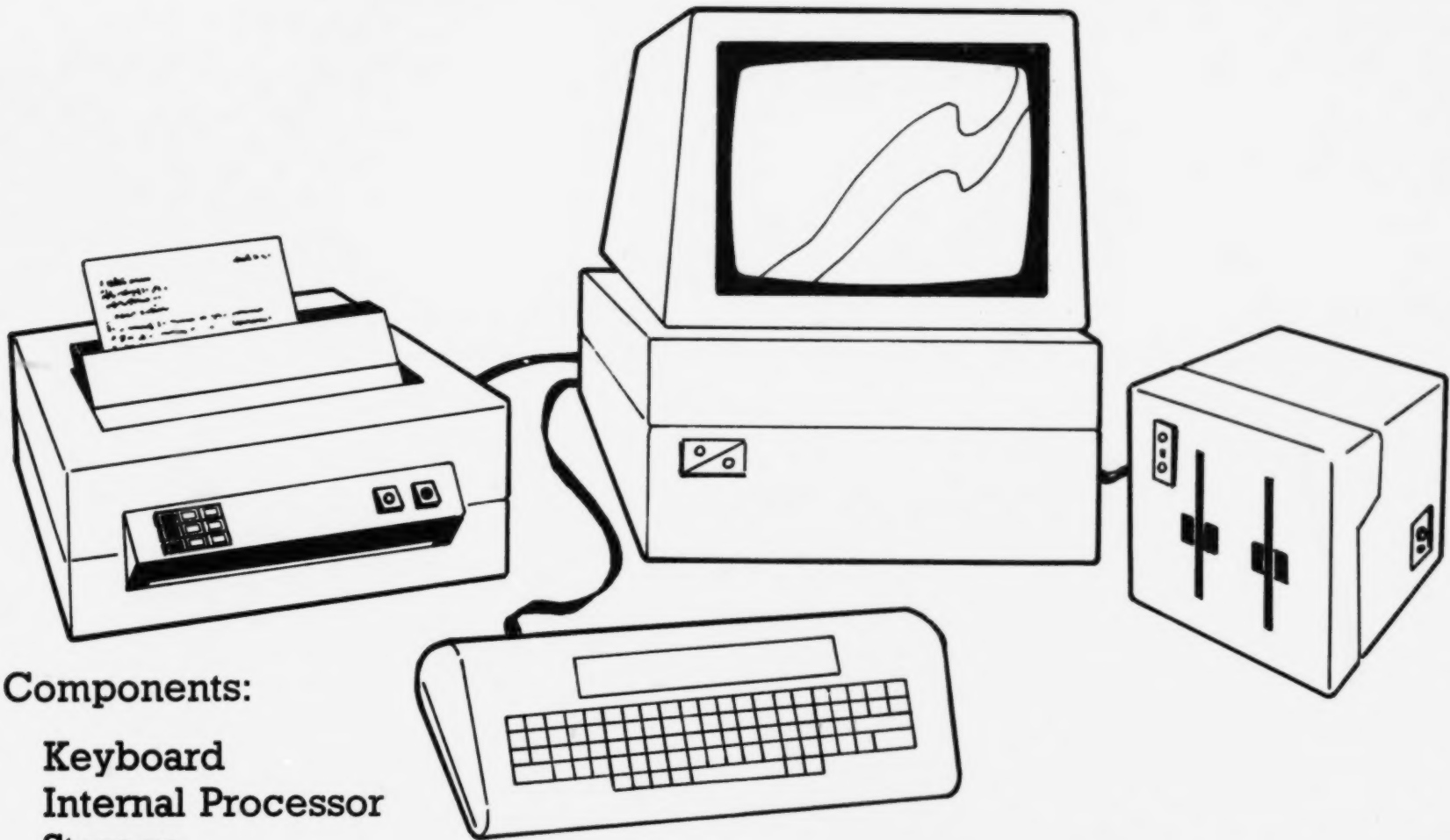
Blind Word Processor



Components: Keyboard
Internal Processor
Storage
Printer

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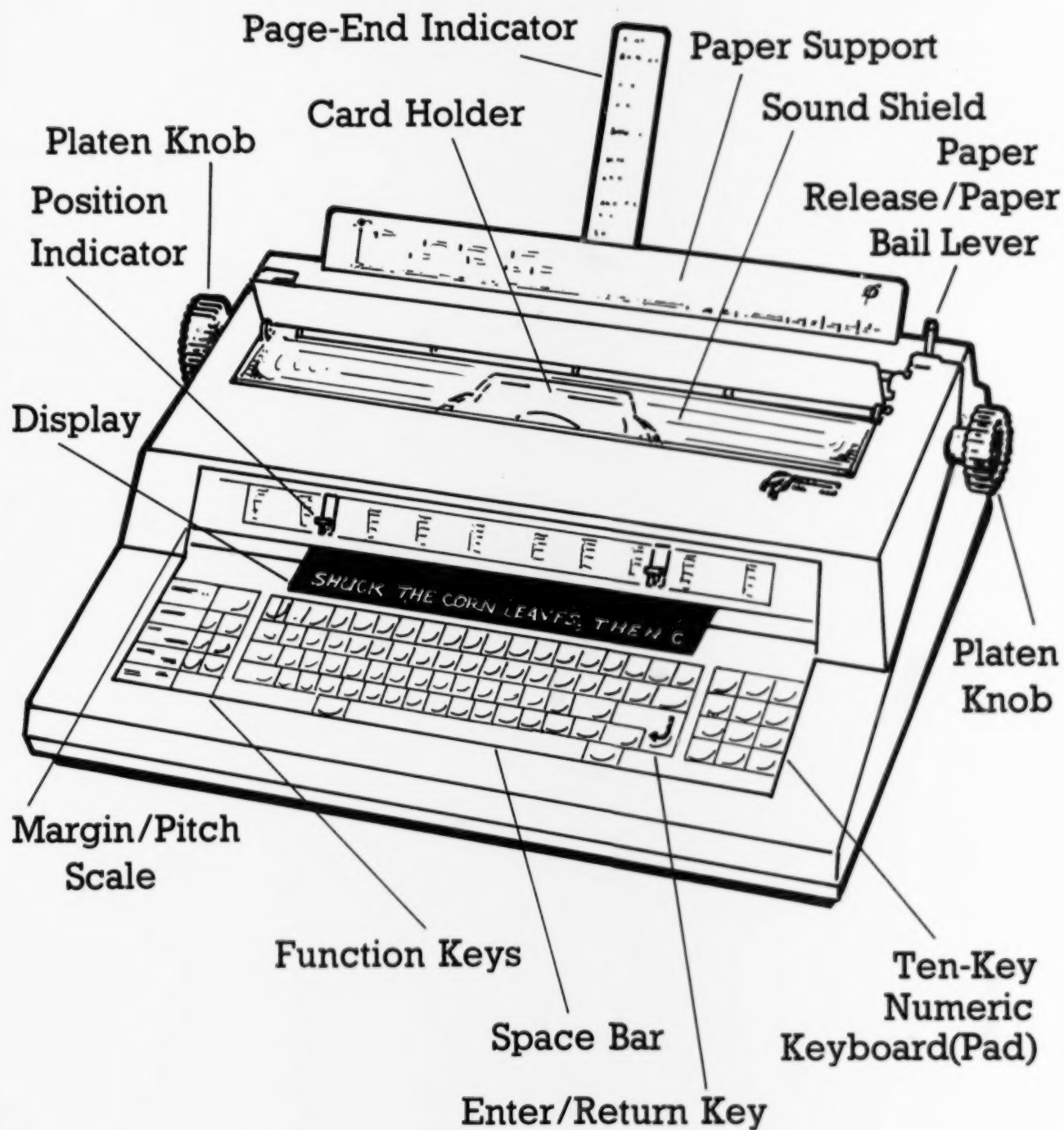
Display Word Processor



Components:

Keyboard
Internal Processor
Storage
Printer
Display Screen

Linear Display Word Processor



Unit IX - Information Processing
Lesson 2 - Word Processing: The Basics

ASSIGNMENT SHEET 1: Learning the Vocabulary for Word Processing

Directions: Match each term with the correct definition.

- | | |
|----------------------------------|--------------------|
| A. Block move | K. Merging |
| B. Communicating text editor | L. Menu |
| C. Configuration | M. Playout |
| D. Display word processor | N. Processing |
| E. Editing | O. Reprographics |
| F. Format | P. Revision |
| G. Global change | Q. Screenload |
| H. Input | R. Text editing |
| I. Intelligent copier | S. Variable |
| J. Linear display word processor | T. Word originator |

- _____ 1. The margins, spacing, and indentations which comprise document layout and control its appearance.
- _____ 2. A word or phrase which changes in a standardized form document.
- _____ 3. Combining of two or more files according to user instruction.
- _____ 4. A feature of some word processors that enable the operator to view a single line of type in a "window into memory" or "thin screen".
- _____ 5. A word processing machine that can transmit and receive text material via telephone lines forming connections with other word processing machines.
- _____ 6. Revising a document by moving an entire paragraph or group of paragraphs from one part of the document to another.
- _____ 7. The first phase in the document cycle in which text or data are entered into a computer or word processor.
- _____ 8. The second phase of the document cycle in which data input is manipulated to produce useful information.
- _____ 9. A word processing system equipped with a visual display screen.
- _____ 10. Options listing.
- _____ 11. An alteration in previously produced text.
- _____ 12. Arrangement of specific components and peripherals that comprise a system.
- _____ 13. Document reproduction.

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Unit IX - Information Processing
Lesson 2 - Word Processing: The Basics

ASSIGNMENT SHEET 2: Investigating Word Processing Systems

Visit two word processing stations in your community. Identify the type of word processing system used--linear, blind, or display. Check the hardware components of each system and identify the features available. Be prepared to discuss your findings with the class.

	Station 1	Station 2
	Type: _____	Type: _____
	Location: _____	Location: _____
Hardware Components:		
Keyboard		
Internal processing unit		
Internal storage		
External storage		
Printer		
Display		
Features:		
Centering		
Copying		
Decimal Alignment		
Format Line		
Global Search and Replace		
Mandatory Page Breaks		
Move		
Pagination		
Right Margin Justification		
Search		
Status Line		
Word Wraparound		

Unit IX - Information Processing
Lesson 2 - Word Processing: The Basics

ASSIGNMENT SHEET 3: Applications of Word Processing Systems

Directions: Given a specific word processing system, research the capabilities of that system and identify applications in which those features would be maximized. Also, identify applications for which this system would be poorly suited.

Suggested word processing program features that should be considered when evaluating word processing systems are:

1. Program friendliness (menus, prompts, abbreviated directions, etc.)
2. Documentation
3. Length of documents generated
4. Search and replace capabilities
5. Copying, moving, and deleting blocks of text
6. Formatting requests (headers, footers, special symbols, decimal alignment, multiple spacing, subscripts, superscripts, justification, underlining, bold print, etc.)
7. Merging of text (and files)
8. Compatibility with other programs (mailmerge, spelling checker, database managers, graphics, communications, etc.)
9. Support (dealer, sales representative, hot line, backup disks, etc.)
10. Others . . .

Unit IX - Information Processing
Lesson 2 - Word Processing: The Basics

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet 1:

1. F
2. S
3. K
4. J
5. B
6. A
7. H
8. N
9. D
10. L
11. P
12. C
13. O

Assignment Sheet 2:

The potential of this assignment depends upon local resources. Students could visit word processing stations at your school, at their parents' workplaces, or at other local businesses. Evaluate the activity through a class discussion which exposes the students' depth of understanding of the components and features of word processing systems.

Assignment Sheet 3:

The potential of these assignments depends upon local resources. If you can access multiple word processing software packages or word processors, students could review a package/system which they did not use during initial instruction.

Alternately, students can research software through magazines or through visits to computer/software stores.

To evaluate the assignment, consider completeness of detail and feasibility of application.

Unit IX - Information Processing
Lesson 2 - Word Processing: The Basics

POSTTEST

I. MATCHING

Directions: Write the letter of the correct term in the blanks before each definition.

Choose from these terms:

- | | |
|-----------------------|------------------------|
| A. block move | L. playout |
| B. buffer | M. principal |
| C. configuration | N. production standard |
| D. cursor keys | O. recall/retrieve |
| E. electronic mail | P. records management |
| F. format | Q. reprographics |
| G. global change | R. revision |
| H. intelligent copier | S. turnaround |
| I. merging | T. variable |
| J. menu | U. word originator |
| K. output | |

- _____ 1. the third phase of the document cycle during which information is printed and reproduced
- _____ 2. managing documents and information from creation through processing, maintenance, and protection to archival retention or destruction
- _____ 3. temporary storage in which text is held during editing prior to printing or placing the material in permanent storage
- _____ 4. options listing
- _____ 5. the amount of time between text submission by the principal and return to the principal by word processing personnel
- _____ 6. the margins, spacing, and indentations which comprise document layout and control its appearance
- _____ 7. combining two or more files according to user instruction
- _____ 8. replacing a section of text with another section of text automatically whenever it appears in a document

- _____ 9. a word or phrase which changes in a standardized document
- _____ 10. access a record or document previously stored in memory
- _____ 11. document reproduction
- _____ 12. an alteration in previously produced text
- _____ 13. revising a document by moving an entire paragraph or group of paragraphs from one part of the document to another

II. SHORT ANSWER

Directions: Briefly answer each question.

1. Explain the difference between using the space bar and the right arrow key.
2. Give two examples of situations when using the search option that will save the user time and effort.
3. Explain the importance of the status line.
4. Explain the difference between pagination and mandatory page break.
5. Identify and describe three of the programs presented in this lesson which expand the capabilities of a word processor.

6. What is the purpose of an electronic dictionary?
7. List the four components of hardware that are common to ALL word processors.

Unit IX - Information Processing
Lesson 2 - Word Processing: The Basics

POSTTEST KEY

- I. 1. K
2. P
3. B
4. J
5. S
6. F
7. I
8. G
9. T
10. O
11. Q
12. R
13. A
- II. 1. The space bar enters a command (moving one space to the right) to the system.
- The arrow key merely moves the cursor over a working position.
2. Answers will vary. Possibilities include quickly locating specific typographical errors, quickly locating a specific position in a long document, and replacing a short character sequence with a series of words to simplify proofreading.
3. The status line is the area in which the system sends messages to the user such as cursor positions, file name, amount of memory remaining, cursor mode, operating mode, etc.
4. Pagination is a software option which allows the system to maintain a line count and then begin a new page when the maximum per-page line count is reached. The user designates a mandatory page break through software control.
5. Expanded capabilities may be communications, electronic dictionary, forms, graphics, list processing, mathematics, or sorting.
6. An electronic dictionary checks spelling by comparing the keyed words with the tens of thousands of words in the electronic dictionary.
7. Keyboard, Internal Processing Unit, Storage, and Printer

Unit IX - Information Processing
Lesson 3 - Word Processing: The Document Cycle

LESSON OBJECTIVE

Using a word processor, the student will be able to produce three mailable revisions of a document within 30 minutes.

SUGGESTED ACTIVITIES

I. Instructor

- A. Prepare transparencies.
- B. Provide objective and information sheets to each student.
- C. Demonstrate hardware/software features available for student use:
 - 1. Forming documents with variables
 - 2. Document merging
 - 3. Boilerplating
- D. Assign Assignment Sheets.
- E. Supplemental projects may be assigned to specifically utilize available hardware/software features.
- F. Administer posttest.

II. Student

- A. Read and discuss objectives and information sheets.
- B. Complete Assignment Sheets.
- C. Complete any projects assigned by your instructor.
- D. Complete posttest.

INSTRUCTIONAL MATERIALS

I. Objective Sheet

II. Information Sheets

III. Transparency Masters

- A. TM 1: The Information Cycle
- B. TM 2: Handling a Floppy Diskette

IV. Assignment Sheet and Answers

- A. AS 1: Text Insertion**
- B. AS 2: Text Revision**

V. Posttest and Key

Unit IX - Information Processing
Lesson 3 - Word Processing: The Document Cycle

INFORMATION SHEET

- I. Input--converting data from human-readable form into machine-readable form (TM 1)
 - A. Handwritten draft to keyboard
 - B. Shorthand dictation to keyboard
 - C. Machine dictation to keyboard
 - D. Typed rough draft
 - E. Keyboarding by author
 - F. Hard copy scanning via OCR
 - G. Voice input via voice terminal
 - H. Computer-aided transcription--machine shorthand input
- II. Process--manipulating machine-readable data by CPU through word processing program
- III. Output--converting information from machine-readable form into human-readable form
 - A. Printer
 - B. Intelligent copier
- IV. Distribution/Communication
 - A. Manual distribution
 - B. U.S. Postal Service
 - C. Electronic mail
 - D. Telecommunications
- V. Storage/Retrieval--referencing of electronic or manual files may occur interactively at any point in the document cycle
 - A. Floppy disk
 - 1. The life expectancy of a diskette used constantly every day is about 3 months.

2. To maximize life expectancy: (TM 2)

- a. When not in use, a diskette should be stored upright in its paper envelope.
- b. Never touch the diskette surface. Skin oils will damage the storage medium.
- c. Do not bend, fold, or crease the diskette or protective jacket.
- d. Do not open the protective jacket.
- e. Handle the diskette in the label area only.
- f. Do not write on the diskette surface. Prepare an ID label for the diskette prior to attaching it.
- g. Remove the old diskette label before applying the new one.
- h. Store diskettes out of direct sunlight and away from heat sources.
- i. Because the diskette has a magnetic coating, contact with a magnet or magnetic field will destroy the data.
- j. Diskettes which are used occasionally have a life expectancy of 1-2 years. (Always maintain a backup diskette to protect your data and time required for re-creation.)

B. Hard disk--capable of storing millions of characters of data.

C. Tape--though sometimes used for backup, tape usage is declining.

VI. Procedures

A. Retrieval

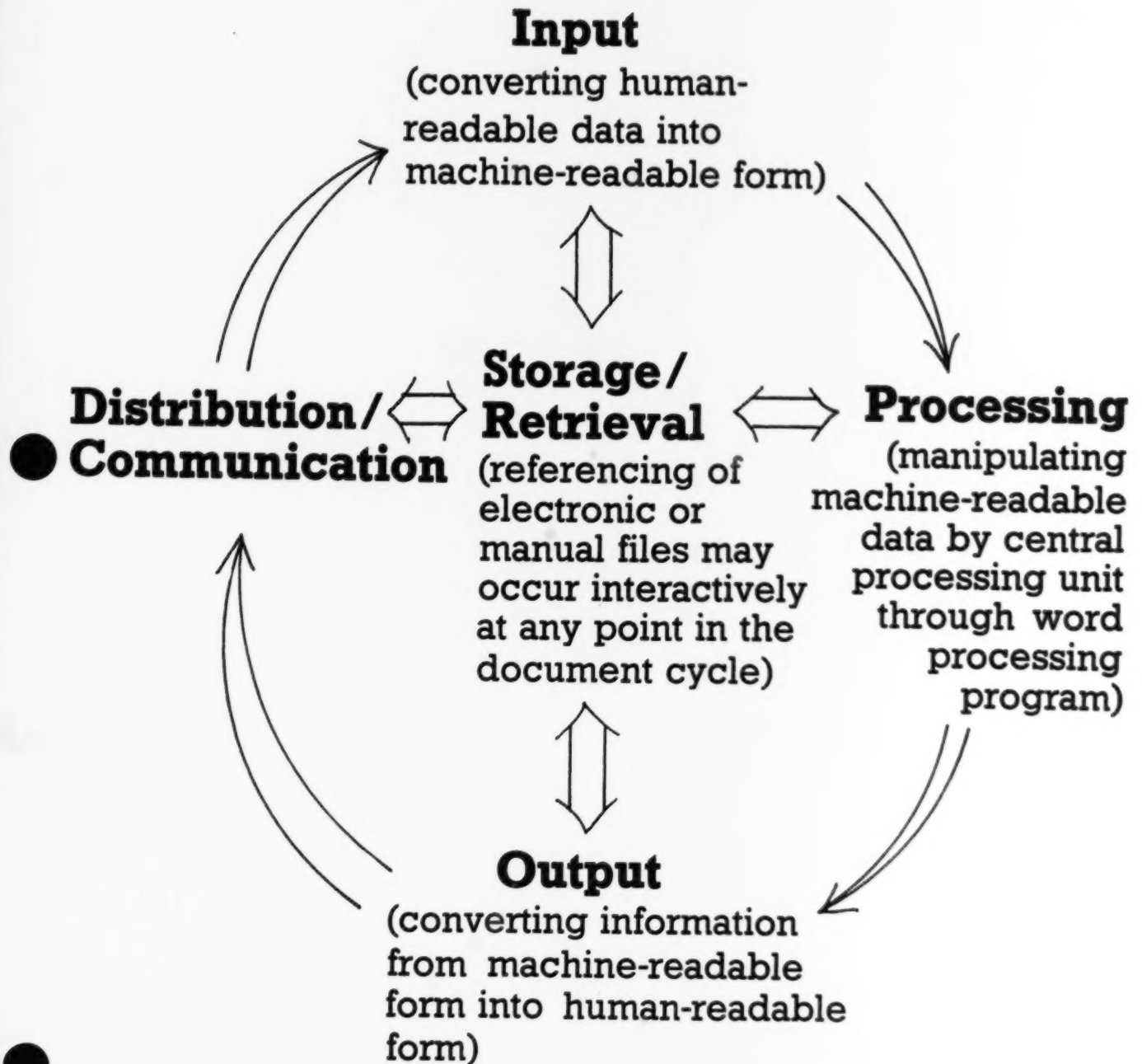
- 1. The purpose in data storage is retrieval.
- 2. To efficiently store and retrieve files and disks, labels/keywords are used:
 - a. Think about the document or disk that you are creating.
 - b. Determine the single most descriptive series of characters to describe it.

- c. Use that series of characters or the major portion of that series up to the maximum length to name your file or disk.
- d. For example, if Chris Jahne uses a series of 5 diskettes (1 for each working day) for his dictation and general work, his disk labels might be "CJMON" through "CJFRI".

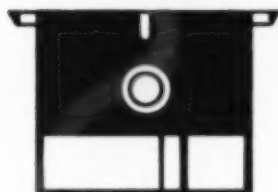
B. Document classification

- 1. Short, one-time use
 - a. Typically original routine correspondence
 - b. Retained in storage 24 hours
- 2. Repetitive--documents that are used often and have many constants and few variables
- 3. Lengthy, edited--those documents which undergo multiple review and revision sequences
- 4. Boilerplate--words, phrases, or document sections which are used frequently and which are retrieved by only a few keystrokes

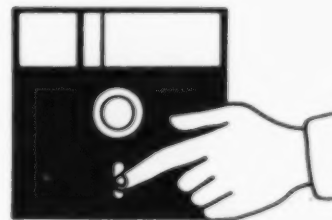
The Information Cycle



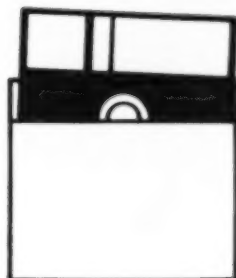
Handling a Floppy Diskette



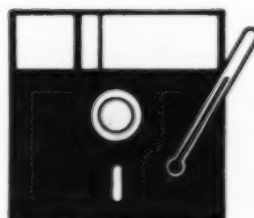
Insert carefully



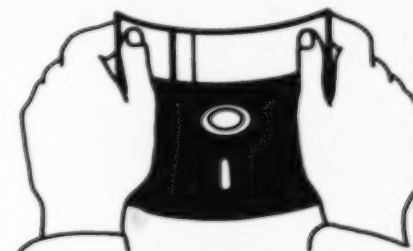
Never touch diskette



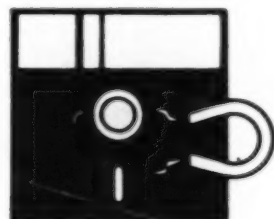
Protect in envelope



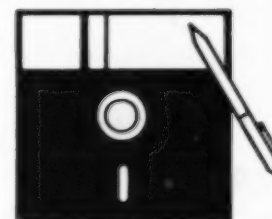
Maintain temperature of
50°F to 125°F



Do not bend or fold



Never expose to magnetic field



Use only felt tip pen on jacket

Unit IX - Information Processing
Lesson 3 - Word Processing: The Document Cycle

ASSIGNMENT SHEET 1: Text Insertion

Directions: Using a word processor, prepare copies of the letter shown below in block format with mixed punctuation. Insert the changes indicated for the following people.

Ms. Janice Wood, President
IEC Incorporated
111 Tower Drive
Cleveland, TN 37311

Credit Line--\$10,000

Mr. John Graham, Vice President
Bell Steel, Inc.
195 Madison Avenue
Denton, TX 76201

Credit Line--\$20,000

Mr. Kenneth Hughes, Purchasing Agent
Down Laboratories
12191 South 10th Street
Stillwater, OK 74074

Credit Line--\$10,000

Mrs. Delores Hart, Controller
Information Systems, Inc.
20203 Pasadena Lane
Flint, MI 48507

Credit Line--\$18,000

Dear _____ (P) Thank you for your order of October 30, 19--. Your merchandise is being shipped today via Gordon Transport. (P) We have established a credit line of \$_____ for your company. Sincerely,
Supplies Unlimited, Jacob Yates, Credit Manager.

Unit IX - Information Processing
Lesson 3 - Word Processing: The Document Cycle

ASSIGNMENT SHEET 2: Text Revision

Directions: Enter the following paragraphs in the word processor. Using the global search feature on your word processor, edit the text so that all references to data processing will be changed to information processing. Also, justify the right margin.

THE DATA PROCESSING DEPARTMENT

1. Most data processing systems in an organization are developed and designed by the data processing department or purchased by them.
2. The persons in the data processing department who are analyzing and designing systems are generally called systems analysts.
3. Systems analysts work with management to assure that outputs from the new system will meet organizational needs.
4. The data processing department manager generally reports to a financial officer of the organization, but increasingly the chief computer executive is himself or herself an officer and reports to the president.
5. In distributed data processing, where systems are geographically disbursed through the organization, data processing department personnel, and especially the systems analysts, are increasingly being relocated in the user departments to provide more direct support.

Unit IX - Information Processing
Lesson 3 - Word Processing: The Document Cycle

ANSWER TO ASSIGNMENT SHEET 1

SUPPLIES UNLIMITED
1021 Glenstone Avenue
Chicago, Illinois 60606

DATE

Ms. Janice Wood, President
IEC Incorporated
111 Tower Drive
Cleveland, TN 37311

Dear Ms. Wood:

Thank you for your order of October 30, 19--.
Your merchandise is being shipped today via
Gordon Transport.

We have established a credit line of
\$10,000 for your company.

Sincerely,

SUPPLIES UNLIMITED

Jacob Yates
Credit Manager

Initials

SUPPLIES UNLIMITED
1021 Glenstone Avenue
Chicago, Illinois 60606

DATE

Mr. John Graham, Vice President
Bell Steel, Inc.
195 Madison Avenue
Denton, TX 76201

Dear Mr. Graham:

Thank you for your order of October 30, 19--.
Your merchandise is being shipped today via
Gordon Transport.

We have established a credit line of
\$20,000 for your company.

Sincerely,

SUPPLIES UNLIMITED

Jacob Yates
Credit Manager

Initials

SUPPLIES UNLIMITED
1021 Glenstone Avenue
Chicago, Illinois 60606

DATE

Mrs. Delores Hart
Controller
Information Systems, Inc.
20203 Pasadena Lane
Flint, MI 48507

Dear Mrs. Hart:

Thank you for your order of October 30, 19--.
Your merchandise is being shipped today via
Gordon Transport.

We have established a credit line of \$18,000
for your company.

Sincerely,

SUPPLIES UNLIMITED

Jacob Yates
Credit Manager

Initials

SUPPLIES UNLIMITED
1021 Glenstone Avenue
Chicago, Illinois 60606

DATE

Mr. Kenneth Hughes
Purchasing Agent
Down Laboratories
12191 South 10th Street
Stillwater, OK 74074

Dear Mr. Hughes:

Thank you for your order of October 30, 19--.
Your merchandise is being shipped today via
Gordon Transport.

We have established a credit line of \$10,000
for your company.

Sincerely,

SUPPLIES UNLIMITED

Jacob Yates
Credit Manager

Initials

Unit IX - Information Processing
Lesson 3 - Word Processing: The Document Cycle

ANSWER TO ASSIGNMENT SHEET 2

THE INFORMATION PROCESSING DEPARTMENT

1. Most information processing systems in an organization are developed and designed by the information processing department or purchased by them.
2. The persons in the information processing department who are analyzing and designing systems are generally called systems analysts.
3. Systems analysts work with management to assure that outputs from the new system will meet organizational needs.
4. The information processing department manager generally reports to a financial officer of the organization, but increasingly the chief computer executive is himself or herself an officer and reports to the president.
5. In distributed information processing, where systems are geographically disbursed through the organization, information processing department personnel, and especially the systems analysts, are increasingly being relocated in the user departments to provide more direct support.

Unit IX - Information Processing
Lesson 3 - Word Processing: The Document Cycle

POSTTEST

Directions: Using a word processor, prepare copies of the letter shown below in block format with mixed punctuation. Insert the changes indicated for the following individuals.

<u>Individual</u>	<u>Amount Overdrawn</u>
Mr. Clint Eastman 119 East 24th Street Jackson, MS 39201	\$ 15.21
Mrs. Toni Claybourn One Golf Course Road Jackson MS 39201	\$ 20.10
Miss Kathy Tyler 249 Geneva Jackson, MS 39201	\$100.25

Dear _____ (P) According to our records, your checking account is overdrawn in the amount of _____. An additional charge for returned checks will appear on your bank statement. (P) We are sure you will want to give immediate attention to this matter. Sincerely, Margaret Ahrens, Assistant Vice President

Unit IX - Information Processing
Lesson 3 - Word Processing: The Document Cycle

POSTTEST KEY

DATE

Mr. Clint Eastman
119 East 24th Street
Jackson, MS 39201

Dear Mr. Eastman:

According to our records, your checking account is overdrawn in the amount of \$15.21. An additional charge for returned checks will appear on your bank statement.

We are sure you will want to give immediate attention to this matter.

Sincerely,

Margaret Ahrens

Margaret Ahrens
Assistant Vice President

initials

DATE

Mrs. Toni Claybourn
One Golf Course Road
Jackson MS 39201

Dear Mrs. Claybourn:

According to our records, your checking account is overdrawn in the amount of \$20.10. An additional charge for returned checks will appear on your bank statement.

We are sure you will want to give immediate attention to this matter.

Sincerely,

Margaret Ahrens

Margaret Ahrens
Assistant Vice President

initials

DATE

Miss Kathy Tyler
249 Geneva
Jackson, MS 39201

Dear Miss Tyler:

According to our records, your checking account is overdrawn in the amount of \$100.25. An additional charge for returned checks will appear on your bank statement.

We are sure you will want to give immediate attention to this matter.

Sincerely,

Margaret Ahrens

Margaret Ahrens
Assistant Vice President

initials

Unit IX - Information Processing
Lesson 4 - Accounting/Data Entry

LESSON OBJECTIVES

Given appropriate hardware, electronic/filing software, and a list of 30 items, the student will be able to enter and print a correct list of requested items with 90 percent accuracy within 45 minutes.

SUGGESTED ACTIVITIES

I. Instructor

- A. Determine capabilities and potential applications of available software.
- B. Prepare examples of records to be entered on selected software.
- C. Structure assignments.
- D. Prepare evaluation measures.
- E. Objective and information sheets should be distributed and discussed with students.
- F. Demonstrate selected software.
- G. Assign Assignment Sheets.
- H. Evaluate Assignment Sheets.
- I. Administer posttest.

II. Student

- A. Read and discuss objectives and information sheets.
- B. Complete Assignment Sheets.
- C. Complete posttest.

INSTRUCTIONAL MATERIALS

I. Objective Sheet

II. Information Sheets

III. Assignment Sheets and Answers

- A. AS 1: Data Entry Project 1
- B. AS 2: Data Entry Project 2

IV. Posttest and Key

Unit IX - Information Processing
Lesson 4 - Accounting/Data Entry

INFORMATION SHEET

I. Terms and Definitions

- A. **Account**—a record which summarizes changes resulting from business transactions
- B. **Accounts Payable**—an amount owed to a creditor for goods or services bought on credit
- C. **Accounts Receivable**—an amount to be received from a customer for goods or services sold on credit
- D. **Assets**—items of value owned by a business or an individual
- E. **Balance Sheet**—a business report showing the assets, liabilities, and capital on a specific date
- F. **Capital**—the equity of the owner of a business
- G. **Capital Statement**—a statement showing a summary of changes in capital over a specified period of time to yield a current capital balance
- H. **Chart of Accounts**—a list of the accounts with numbers for a business
- I. **Credit**—an amount entered on the right side of an account
- J. **Data Entry**—the recording of human readable data into a form that an input device can interpret for the computer system (Refer to Lesson 3, TM1 and TM2)
- K. **Data Entry Operator**—the person who records human-readable data from a source document into a form that is machine-readable
- L. **Date Field**—one or more related characters representing a specific data element, such as name, quantity, or dollar amount
- M. **Debit**—an amount entered on the left side of an account
- N. **Financial Statements**—the income statement, capital statement, and balance sheets of a business
- O. **Income Statement**—a statement which shows a summary of revenue and expenses to determine net income for a specified period of time
- P. **Journal**—a record of business transactions

- Q. **Journalizing**--the process of recording business transactions
- R. **Liabilities**--amounts owed by a business or individual
- S. **Net Income**--the amount by which revenues exceed expenses
- T. **Net Loss**--the amount by which expenses exceed revenues
- U. **Posting**--the orderly transfer of data from a journal to a ledger
- V. **Source of Document**--document from which raw or original data is obtained
- W. **Trial Balance**--a report that verifies the equality of the debits and the credits in the ledger

II. Data Entry Procedures

- A. Loading the software
- B. Accessing the data entry program
- C. Entry
 - 1. Function keys
 - 2. Input control procedures
 - a. Field content requirement (alpha, numeric, date)
 - b. Field entry requirement (data must be entered; field cannot remain empty)
 - 3. Record completion
 - 4. Data entry session completion
- D. Exiting the data entry program

III. Data Reliability -- garbage in = garbage out (GIGO)

IV. Entry Correction

- A. Proofreading
 - 1. During entry
 - 2. Following record storage

B. Correction procedures

1. Accessing stored record
2. Correction entry
3. Storing corrected record
4. Exiting correction procedure

Unit IX - Information Processing
Lesson 4 - Accounting/Data Entry

ASSIGNMENT SHEET 1: Data Entry Project 1

Directions: Use the software available at your school to complete projects which your instructor selects. Specific data to be entered will be provided by your instructor.

Use a software package to complete an exercise in one of the following: Accounts Payable, Accounts Receivable, Payroll, Inventory, Financial Statements, etc.

Unit IX - Information Processing
Lesson 4 - Accounting/Data Entry

ASSIGNMENT SHEET 2: Data Entry Project 2

Directions: Use the software available at your school to complete projects which your instructor selects. Specific data to be entered will be provided by your instructor.

Utilize database software to structure a record in which to enter data. Possible record structures include a student information record, fixed inventory record, incoming mail record, etc. Entries should reflect the software potential as well as reinforce fundamental procedures.

Unit IX - Information Processing
Lesson 4 - Accounting/Data Entry

ANSWERS TO ASSIGNMENT SHEETS

The content of these assignments is dependent upon available software.

Evaluation should be based upon effective, efficient data entry as it is appropriate to the specific application and software.

Data from a simulation may be utilized in these assignments.

Unit IX - Information Processing
Lesson 4 - Accounting/Data Entry

POSTTEST

Directions: Using database software, create records and enter the following information. Print a list of seniors with a grade point average of 3.5 or above. Also, indicate on the list if the student is male or female.

<u>Student Number</u>	<u>Age</u>	<u>Grade</u>	<u>Sex</u>	<u>Grade Average</u>
101132	14	9	M	2.5
101135	15	9	M	3.9
415568	17	12	F	3.3
214498	15	10	M	1.3
304486	16	11	F	3.7
113568	13	9	F	3.9
134896	14	9	F	2.6
359862	16	11	M	1.1
487621	19	12	M	3.7
450453	18	12	F	3.8
456236	17	12	F	3.9
326859	17	11	M	2.7
217645	15	10	F	3.6
288792	14	10	F	3.8
475622	18	12	F	3.2
422222	17	12	F	3.7
435987	18	12	F	3.5
401122	17	12	M	3.5
133321	14	9	M	2.3
224098	15	10	F	3.6
404562	17	12	F	3.7
404463	18	12	M	3.4
404462	17	12	M	1.2
406321	18	12	M	2.0
269754	14	10	M	1.6
198342	13	9	F	2.2
198344	14	9	F	2.9
198345	14	9	M	4.0
201169	16	10	M	2.3
201170	15	10	F	2.3

Unit IX - Information Processing
Lesson 4 - Accounting/Data Entry

POSTTEST KEY

<u>Student Number</u>	<u>Sex</u>	<u>Grade Average</u>
487621	M	3.7
450453	F	3.8
456236	F	3.9
422222	F	3.7
435987	F	3.5
401122	M	3.5
404562	F	3.7

Unit IX - Information Processing
Lesson 5 - Electronic Spreadsheets

LESSON OBJECTIVE

Given a spreadsheet application, hardware, and appropriate software, the student will design a spreadsheet, enter the data, store, and print the results with 80 percent accuracy within 90 minutes.

SUGGESTED ACTIVITIES

I. Instructor

- A. Prepare transparencies.
- B. Provide objective and information sheets for each student.
- C. Discuss information sheets.
- D. Demonstrate hardware and software features available for student use:
 - 1. Cursor Movement
 - 2. Entry:
 - a. Label
 - b. Value
 - c. Formula
 - 3. Storage
 - 4. Retrieval
 - 5. Printing
 - 6. Formatting
 - a. Cell
 - b. Global
 - 7. Other Commands
- E. Demonstrate spreadsheet usage by constructing during class a wage/hour chart. After it is completed, change the initial wage.
- F. As a class activity, use formulas to construct a wage and hour chart showing 31 to 40 hours per week and hourly amounts ranging from \$3.40 to \$4.00 with 10¢ increments. Then change the minimum hourly wage to \$3.35, the least number of hours to 21, etc., to demonstrate the benefit of formula structure rather than value entry.
- G. Assign Assignment Sheets.
- H. Assign additional projects (teacher-supplied) as necessary for student mastery of hardware, software, and electronic spreadsheet concepts.
- I. Give posttest.

II. Student

- A. Read and discuss objective and information sheets.
- B. Complete Assignment Sheets.
- C. Take posttest.

INSTRUCTIONAL MATERIALS

I. Objective Sheet

II. Information Sheets

III. Transparency Masters

- A. TM 1: Multiplan Screen
- B. TM 2: Spreadsheet
- C. TM 3: Spreadsheet

IV. Assignment Sheets and Answers

- A. AS 1: Electronic Spreadsheet

V. Posttest and Key

Unit IX - Information Processing
Lesson 5 - Electronic Spreadsheets

INFORMATION SHEET

I. Term and Definition

- A. **Electronic spreadsheet** - a working area divided into rows and columns in which each cell (individual working position) may contain alpha characters (label), a number (value), or a formula

II. Procedures

- A. Loading/accessing spreadsheet software
- B. Spreadsheet design
 - 1. Row and columns
 - 2. Cells
 - 3. Values, labels, and formulas
 - 4. Formats
 - 5. Windows
 - 6. Security/locking cells
 - 7. Titles
- C. Storage
 - 1. Initial
 - 2. Retrieval
- D. Printing

III. Benefits of Using Spreadsheet Software

- A. Speeds "number crunching"
- B. Improves accuracy
 - 1. Virtually eliminates arithmetic error
 - 2. Reduces input error because single input is reused
- C. Strengthens decision making because data that was formerly too time consuming to generate is now possible (allows user to explore alternatives quickly and easily)

IV. Limitations of Using Spreadsheet Software

- A. Training time required for efficient operation
- B. Time required to structure spreadsheets
- C. Lack of user understanding of the problem (If the user does not understand how to solve a problem without the computer, the computer may not solve the problem either.)
- D. Limited memory size
- E. Limited size of potential calculations
- F. Decreasing speed as spreadsheet becomes increasingly complex
- G. Disproportionate benefit to required energy for infrequent problems

V. Applications

- A. Financial analysis
- B. Projections
- C. "Number crunching"

#1	1	2	3	4	5	6	7
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

COMMAND: Alpha Blank Copy Delete Edit Format Goto Help Insert Lock Move
 Name Options Print Quit Sort Transfer Value Window Xternal

Select option or type command letter

R1C1

100% Free

Multiplan: TEMP

Spreadsheet

	1	2	3	4	5	6	7	8	9	10	11
1		3	3.25	3.35	3.5	3.75	4	4.25	4.5	4.75	5
2	20	60	65	67	70	75	80	85	90	95	100
3	21	63	68.25	70.35	73.5	78.75	84	89.25	94.5	99.75	105
4	22	66	71.5	73.7	77	82.5	88	93.5	99	104.5	110
5	23	69	74.75	77.05	80.5	86.25	92	97.75	103.5	109.25	115
6	24	72	78	80.4	84	90	96	102	108	114	120
7	25	75	81.25	83.75	87.5	93.75	100	106.25	112.5	118.75	125
8	26	78	84.5	87.1	91	97.5	104	110.5	117	123.5	130
9	27	81	87.75	90.45	94.5	101.25	108	114.75	121.5	128.25	135
10	28	84	91	93.8	98	105	112	119	126	133	140
11	29	87	94.25	97.15	101.5	108.75	116	123.25	130.5	137.75	145
12	30	90	97.5	100.5	105	112.5	120	127.5	135	142.5	150
13	31	93	100.75	103.85	108.5	116.25	124	131.75	139.5	147.25	155
14	32	96	104	107.2	112	120	128	136	144	152	160
15	33	99	107.25	110.55	115.5	123.75	132	140.25	148.5	156.75	165
16	34	102	110.5	113.9	119	127.5	136	144.5	153	161.5	170
17	35	105	113.75	117.25	122.5	131.25	140	148.75	157.5	166.25	175
18	36	108	117	120.6	126	135	144	153	162	171	180
19	37	111	120.25	123.95	129.5	138.75	148	157.25	166.5	175.75	185
20	38	114	123.5	127.3	133	142.5	152	161.5	171	180.5	190
21	39	117	126.75	130.65	136.5	146.25	156	165.75	175.5	185.25	195
22	40	120	130	134	140	150	160	170	180	190	200

Spreadsheet

	1	2	3	4	5	6	7	8	9	10	11
1		3	3.25	3.35	3.5	3.75	4	4.25	4.5	4.75	5
2											
3	20	60	65	67	70	75	80	85	90	95	100
4											
5	21	63	68.25	70.35	73.5	78.75	84	89.25	94.5	99.75	105
6	22	66	71.5	73.7	77	82.5	88	93.5	99	104.5	110
7	23	69	74.75	77.05	80.5	86.25	92	97.75	103.5	109.25	115
8	24	72	78	80.4	84	90	96	102	108	114	120
9	25	75	81.25	83.75	87.5	93.75	100	106.25	112.5	118.75	125
10											
11	26	78	84.5	87.1	91	97.5	104	110.5	117	123.5	130
12	27	81	87.75	90.45	94.5	101.25	108	114.75	121.5	128.25	135
13	28	84	91	93.8	98	105	112	119	126	133	140
14	29	87	94.25	97.15	101.5	108.75	116	123.25	130.5	137.75	145
15	30	90	97.5	100.5	105	112.5	120	127.5	135	142.5	150
16											
17	31	93	100.75	103.85	108.5	116.25	124	131.75	139.5	147.25	155
18	32	96	104	107.2	112	120	128	136	144	152	160
19	33	99	107.25	110.55	115.5	123.75	132	140.25	148.5	156.75	165
20	34	102	110.5	113.9	119	127.5	136	144.5	153	161.5	170
21	35	105	113.75	117.25	122.5	131.25	140	148.75	157.5	166.25	175
22											
23	36	108	117	120.6	126	135	144	153	162	171	180
24	37	111	120.25	123.95	129.5	138.75	148	157.25	166.5	175.75	185
25	38	114	123.5	127.3	133	142.5	152	161.5	171	180.5	190
26	39	117	126.75	130.65	136.5	146.25	156	165.75	175.5	185.25	195
27	40	120	130	134	140	150	160	170	180	190	200

Unit IX - Information Processing
Lesson 5 - Electronic Spreadsheets

ASSIGNMENT SHEET 1: Electronic Spreadsheet

Directions: Using the departmental information given below, create three different electronic spreadsheets with appropriate headings that incorporate the following functions:

1. Calculate the total for each column and the percentage of the total each department represents.
2. Calculate the percentage above or below budget for each department.
3. Calculate the increase or decrease from last year to this year.

DEPT	LAST YEAR		THIS YEAR	
	BUDGET	ACTUAL	BUDGET	ACTUAL
A	13,500	12,691	14,300	9,342
B	30,000	29,579	32,000	34,655
C	2,500	1,607	2,500	1,069
D	6,500	7,656	8,000	4,946
E	3,000	1,934	3,200	1,569
F	6,500	4,846	6,500	4,300
G	225	212	230	205
H	5,000	4,179	6,000	4,306
I	1,300	1,045	1,500	940

Unit IX - Information Processing
Lesson 5 - Electronic Spreadsheets

ANSWERS TO ASSIGNMENT SHEET 1

Percentage of total for each department:

DEPT	LAST YEAR				THIS YEAR			
	BUDGET	%	ACTUAL	%	BUDGET	%	ACTUAL	%
A	13,500	20%	12,691	20%	14,300	19%	9,342	15%
B	30,000	44%	29,579	46%	32,000	43%	34,655	57%
C	2,500	4%	1,607	3%	2,500	3%	1,069	2%
D	6,500	9%	7,656	12%	8,000	11%	4,946	8%
E	3,000	4%	1,934	3%	3,200	4%	1,569	3%
F	6,500	9%	4,846	8%	6,500	9%	4,300	7%
G	225	0%	212	0%	230	0%	205	0%
H	5,000	7%	4,179	7%	6,000	8%	4,306	7%
I	1,300	2%	1,045	2%	1,500	2%	940	2%
TOTAL	68,525	100%	63,749	100%	74,230	100%	61,332	100%

Percentage above or below budget:

DEPT	LAST YEAR			THIS YEAR		
	BUDGET	ACTUAL		BUDGET	ACTUAL	
A	13,500	12,691	-6%	14,300	9,342	-35%
B	30,000	29,579	-1%	32,000	34,655	8%
C	2,500	1,607	-36%	2,500	1,069	-57%
D	6,500	7,656	18%	8,000	4,946	-38%
E	3,000	1,934	-36%	3,200	1,569	-51%
F	6,500	4,846	-25%	6,500	4,300	-34%
G	225	212	-6%	230	205	-11%
H	5,000	4,179	-16%	6,000	4,306	-28%
I	1,300	1,045	-20%	1,500	940	-37%
TOTAL	68,525	63,749	-7%	74,230	61,332	-17%

Percentage of increase or decrease from last year:

DEPT	PREVIOUS			CURRENT		
	BUDGET	BUDGET	% CHANGE	ACTUAL	ACTUAL	% CHANGE
A	13,500	14,300	6%	12,691	9,342	-36%
B	30,000	32,000	7%	29,579	34,655	15%
C	2,500	2,500	0%	1,607	1,069	-50%
D	6,500	8,000	23%	7,656	4,946	-55%
E	3,000	3,200	7%	1,934	1,569	-23%
F	6,500	6,500	0%	4,846	4,300	-13%
G	225	230	2%	212	205	-3%
H	5,000	6,000	20%	4,179	4,306	3%
I	1,300	1,500	15%	1,045	940	-11%
TOTAL	68,525	74,230	8%	63,749	61,332	-4%

POSTTEST

	July	Aug.	Sept.	Oct.	Nov.	Dec.
<u>Sales</u>	10000	8000	9000	9000	10000	13000
<u>Cost of Goods Sold</u>						
Beginning Inventory	47000					
Purchases	3000	3000	1500	4000	5000	1000
Ending Inventory	48000	49000	48000	50000	52000	49000
<u>Total Cost of Goods</u>						
<u>Gross Margin</u>						
<u>Expenses</u>						
Salaries	3000	3000	3000	3000	3000	4000
Payroll Taxes	assume	15% of	Salaries			
Rent	300	300	300	300	300	300
Utilities	250	300	225	275	350	450
Insurance	300	300	300	300	300	300
Miscellaneous	200	200	125	200	400	650
<u>Total Expenses</u>						
<u>Pre-Tax Profit</u>						
<u>Taxes</u>	assume	50% of	Pre-Tax			
<u>Net Profit</u>						

Unit IX - Information Processing
Lesson 5 - Electronic Spreadsheets

POSTTEST KEY

Note: Students should use formulas to compute the monthly amounts for each of the following rows: Total Cost of Goods, Gross Margin, Total Expenses, Pre-Tax Profit, Taxes, and Net Profit.

	July	Aug.	Sept.	Oct.	Nov.	Dec.
Sales	10,000.00	8,000.00	9,000.00	9,000.00	10,000.00	13,000.00
Cost of Goods Sold						
Beginning Inventory	47,000.00	48,000.00	49,000.00	48,000.00	50,000.00	52,000.00
Purchases	3,000.00	3,000.00	1,500.00	4,000.00	5,000.00	1,000.00
Ending Inventory	48,000.00	49,000.00	48,000.00	50,000.00	52,000.00	49,000.00
Total Cost of Goods	2,000.00	2,000.00	2,500.00	2,000.00	3,000.00	4,000.00
Gross Margin	8,000.00	6,000.00	6,500.00	7,000.00	7,000.00	9,000.00
Expenses						
Salaries	3,000.00	3,000.00	3,000.00	2,000.00	3,000.00	4,000.00
Payroll Taxes	450.00	450.00	450.00	450.00	450.00	600.00
Rent	300.00	300.00	300.00	300.00	300.00	300.00
Utilities	250.00	300.00	225.00	275.00	350.00	450.00
Insurance	300.00	300.00	300.00	300.00	300.00	300.00
Miscellaneous	200.00	300.00	125.00	200.00	400.00	650.00
Total Expenses	4,500.00	4,650.00	4,400.00	4,525.00	4,800.00	5,300.00
Pre-Tax Profit	3,500.00	1,350.00	2,100.00	2,475.00	2,200.00	2,700.00
Taxes	1,750.00	675.00	1,050.00	1,237.50	1,100.00	1,350.00
Net Profit	1,750.00	675.00	1,050.00	1,237.50	1,100.00	1,350.00

Unit IX - Information Processing
Lesson 6 - Database Management

LESSON OBJECTIVES

1. Given an existing database and appropriate hardware, the student will enter data consisting of at least 30 pieces of inventory with 95 percent accuracy within 30 minutes.
2. Given an existing database and appropriate hardware, the student will access and extract 6 categories of data with 100 percent accuracy within 30 minutes.
3. Given an existing database, appropriate hardware, and 3 business applications, the student will extract and format data with 95 percent accuracy within 30 minutes.
4. Given appropriate hardware and software, the student will design with 80 percent accuracy within 90 minutes, a database consisting of at least three student organization membership lists.

SUGGESTED ACTIVITIES

I. Instructor

- A. Determine capabilities and potential applications of available software.
- B. Prepare copies of the departmental inventory for student use in Assignment 1.
- C. Prepare objective and information sheets.
- D. Discuss information sheets and demonstrate selected software.
- E. Assign Assignment Sheets.
- F. Make additional assignments as necessary to reinforce procedures or to utilize additional database software.
- G. Give posttest.

II. Student

- A. Read and discuss objective and information sheets.
- B. Complete Assignment Sheets.
- C. Take posttest.

INSTRUCTIONAL MATERIALS

- I. Objective Sheet
- II. Information Sheets
- III. Assignment Sheets and Answers
 - A. AS 1: Database--Departmental Inventory
 - B. AS 2: Database Analyses
 - C. AS 3: Database Reports
 - D. AS 4: Database--Customer List
- IV. Posttest and Key

Unit IX - Information Processing
Lesson 6 - Database Management

INFORMATION SHEET

I. Terms and Definitions

- A. **Database** - a collection of related data stored electronically that can be retrieved or massaged by software (such as a customer list or a list of customers who have made purchases exceeding \$10,000 within the past 60 days)
- B. **Electronic filing** - storing information electronically rather than on paper
- C. **Field** - a unit of data; part of a record
- D. **File** - a group of records
- E. **Record** - a group of related fields concerning a single item such as the name, address, phone, year in school, courses completed, current enrollment for one student
- F. **Sequential access** - the method by which records are examined in the order in which they were stored

II. Purpose

- A. Using a database allows the user to retrieve pieces of data in a form which will facilitate the decision-making process.
- B. The power of a database is directly correlated with the flexibility, efficiency, and effectiveness of retrieving needed data.

III. Using a Database

- A. Create the record structure.
 - 1. Identify the data which will be needed for reference later. If a fact will not be used again, including it as a record wastes file space and data-entry time and energy. Omitting a fact which will be needed will waste computer potential in retrieval and user time to search for that fact at a later time.
 - 2. Organize the fields identified above into a sequence that is logical for data entry and appropriate to retrieval needs.
 - 3. Enter the record structure (stems).

- B. Enter data into the file structure. The data should be verified as it is entered and corrections should be made as necessary.
- C. Design retrieval specifications to select data needed for decision-making. Omit data which is not relevant to the current application but include all data which may be pertinent.
- D. Select records matching the retrieval specifications.
 - 1. Review record.
 - 2. Correct/update record.
 - 3. Delete record.
 - 4. Print record.
- E. Print reports showing the selected records in a format which is easy to understand and which facilitates the decision-making process.
 - 1. Include all pertinent data.
 - 2. Utilize appropriate report titling.
 - 3. Position the report on the paper to maximize ease in reading.

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Unit IX - Information Processing
Lesson 6 - Database Management

ASSIGNMENT SHEET 1: Database--Departmental Inventory

Directions: Using an existing file structure, enter the data comprising the business department inventory, verifying accuracy prior to record storage.

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Unit IX - Information Processing
Lesson 6 - Database Management

ASSIGNMENT SHEET 2: Database Analyses

Directions: Using the computerized inventory database developed in Assignment 1, sort and select data and print reports showing:

1. all items purchased 5 or more years ago
2. all items costing \$1000 or more
3. all items without serial numbers
4. all items purchased less than 1 year ago
5. all items listed alphabetically according to item name
6. all items listed chronologically according to purchase date

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ASSIGNMENT SHEET 3: Database Reports

Directions: Complete the following projects using the computerized inventory database developed in Assignment 1.

1. Next year's equipment budget for the department will be \$10,000. First priority purchases will be replacing items which have been used 7 or more years. Prepare a report showing the items to be replaced.
2. Our insurance representative has requested a report showing the individual items as well as the total value of equipment currently in use that was purchased during each of the past ten years. Prepare the appropriate reports.
3. Because of technological advances some equipment can now be replaced for less than original price. Prepare reports showing equipment with lower replacement value than original cost, equipment with equal replacement value and original cost, and equipment with lower cost than replacement value.

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Lesson 6 - Database Management

ASSIGNMENT SHEET 4: Database--Customer List

Directions: Complete the project described below.

1. Design a database record structure for companies and/or individuals frequently used for telephoning and/or writing.
2. Utilizing the database, enter data for at least one record in each of the following categories:

airline	ambulance
attorney	bakery
bank	car dealership
church/synagogue	clothing store
college/university	construction company
dentist	discount store
dry cleaners	electrician
elementary school	fire department
florist	gas station
grocery store	hair salon
high school	hospital
hotel/motel	insurance company
jeweler	laundromat
lumber company	manufacturing company
mechanic	medical specialist
middle school	newspaper
pharmacy	photographer
physician	plumber
police	radio station
restaurant	shoe store
television station	travel agency
utility company	vocational school

3. Retrieve data and print reports showing:
 - a) all records in alphabetical order
 - b) all records in ZIP code order
 - c) all records for out-of-state entries
 - d) all records in telephone number order
 - e) all records with toll-free telephone numbers
 - f) all records with area codes different from the local one

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ANSWERS TO ASSIGNMENT SHEETS

Verify the data entered with the original data provided to the students.

Evaluate the reports produced based upon maximizing software capability and the criteria contained in the information sheet.

Unit IX - Information Processing
Lesson 6 - Database Management

POSTTEST

Directions: Complete the following projects.

Design a student record structure to be used for the membership in FBLA. The record should show all pertinent personal data as well as activities participated in such as district and state competitive events.

After data has been entered, print a membership for FBLA indicating the officers of the organization and other pertinent information. Also, prepare a mailing list and a telephone directory.

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POSTTEST KEY

Verify the data entered with the original data provided to the students.

Evaluate the reports produced based upon maximizing software capability and the criteria contained in the information sheet.